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**THE JUNIOR HIGH SCHOOL**

**REVISED EDITION**



# THE JUNIOR HIGH SCHOOL

REVISED EDITION

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FLORIDA STATE COLLEGE FOR WOMEN

TALLAHASSEE, FLA.

BY

G. VERNON BENNETT, PH.D.

UNIVERSITY OF SOUTHERN CALIFORNIA



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## PREFACE TO THE SECOND EDITION

Eight years ago the first edition of this work was prepared for publication. Time has brought many changes to the junior high school: modification in aims, organization, and general practices. A restatement of the aims as influenced by time has been found necessary for a better comprehension of present-day procedure. School organizers are coming to have a clearer vision of what can and what cannot be accomplished through the various sections of the public school system: this vision—once considered visionary—we have attempted to state for the junior high school.

Certain parts of the first edition have been entirely eliminated from this treatment because the matters discussed have become obsolete or are no longer applicable. The chapter dealing with objections to the junior high school plan and answers to those objections has thus gone by the board. The sections dealing with the adjustments of elementary school to the new plan have been omitted. A chapter setting forth the kind of teachers and principals needed and where they should receive their training was felt to be no longer of any practical value. Finally the last chapter of the first edition, which attempted to sketch ideal conditions for the growth of the junior high school plant, has given place to one describing in detail the conditions under which two real schools have actually grown.

Considerable revision of those sections describing physical education, shopwork, English, foreign languages, and mathematics was made because of the important



changes which these subjects have undergone since the World War.

Chapter Seven is entirely new. In it an attempt is made to bring together into a single curriculum the most progressive practices in adapting school work to the well-established aims and objects of education. The conventional subjects of English, foreign languages, mathematics, science, and manual training do not appear in this curriculum. Instead, the subjects to be pursued are physical education, social-civic education, cultural education, and vocational education. No school has a complete program of this character. But every part of the work described is done in some school somewhere. The chapter, therefore, does not present a hypothetical situation; rather, it synthesizes practices tried out in many places and with success.

The number of persons who have made possible this revision is too large to permit of their being mentioned here by name. It will be possible to mention them only by groups; but the author wishes, nevertheless, that they know of his appreciation of their help. Students in his many classes—most of them teachers and principals in junior high schools—have contributed by research and by experimentation. State and city administrative officers have sent him reports and have answered painstakingly a long questionnaire. Finally, he has drawn on the facts and data published in the educational literature of the junior high school, a digest of which has been woven into the fabric of this discussion. To writers and publishers, students and practitioners, gratitude.

G. VERNON BENNETT.

LOS ANGELES, *May 8, 1926*

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# THE JUNIOR HIGH SCHOOL

## CHAPTER I

### THE PROBLEMS AND THE SOLUTIONS

1. **Definition of Junior High School.** A junior high school in the sense in which the term is commonly used has the following<sup>1</sup> characteristics:

(a) It is a separate educational institution, with a distinct organization and corps of officers and teachers.

(b) It embraces the seventh, eighth and ninth grades, and sometimes the tenth.<sup>2</sup>

(c) It has a curriculum in the seventh and eighth grades enriched by the presence of several subjects not ordinarily taught in elementary school, or by the broadening of the so-called common branches so as to make them contribute more largely to cultural, social and vocational ends.

(d) It promotes by subject even in the seventh and eighth grades, thus permitting bright pupils to go faster and dull pupils to go more slowly than the average.

(e) It permits a differentiation of courses for pupils or groups of pupils at a time when individual differences are becoming accentuated by the onset of adolescence.

<sup>1</sup> Several organizations have essayed to determine the essential characteristics of junior high schools. The North Central Association Commission on Secondary Schools has defined it in much the same way as given herein. Cf. its Bulletins for 1918 and 1919.

<sup>2</sup> "The course for junior high schools shall be designed to fit the needs of pupils of the 7th, 8th, and 9th grades, or of the 7th, 8th, 9th, and 10th grades." California State Political Code, Part III, Title III, Chapter III, Section 1750.

(f) The faculty is organized on the departmental plan.

It is in this sense that the term will be used in this book, for in practically all cities where the movement for establishing these schools has gotten well under way, the plan embraces all of these points.

In the early history of the movement, the term "intermediate high school" and "intermediate school" were sometimes used. This was especially true in California. The latter term is still used in Michigan and occasionally elsewhere. The expression "junior high school" was probably first used at Columbus, Ohio, and thence spread to other parts of the country, rapidly supplanting other designations. It has been written into the laws of Maine, Vermont, California, Alabama, Minnesota, and several other states, is adopted by publishers of school text-books, and is used in federal reports. It is liked best by the pupils of the school.<sup>1</sup>

The subject of the junior high school will be discussed first as an educational movement and second as a functioning institution. In the first division will be treated: in this chapter, the conditions leading to the creation of the junior high school and the methods used to correct those conditions; in the second chapter, the early history of the movement; in the third chapter, recent history; in the fourth, the relation of the junior high school movement to elementary education and to secondary education.

In the second division—the school as an institution—chapters five and six will be devoted to the curriculum and courses of study; chapter seven to a synthesized program of progressive principles chapter eight to problems of teaching; chapter nine to administration; and chapter ten to a description of two typical junior high schools as they are at work.

<sup>1</sup> Davis, *The Junior High School*, p. 11, quotes to this effect from an article by A. P. Jones in the *School Review* for Feb., 1918.

In this chapter will be set forth the causes that brought the junior high school into existence. It will be shown how society has made certain demands on the public schools which they could not satisfy under the 8-4 plan of organization. The junior high school was created to meet these demands or needs. The four outstanding demands were: (1) That the enormous number of undesirable withdrawals from school be prevented; (2) That the character of the school be so altered as to eliminate that type of impractical and worthless scholasticism that fits the youth for nothing in particular, and that a positive effort be made to guide them into suitable occupational choices; (3) That the tendency to lengthen the period of preparation for skilled vocations and professions be partly offset by some method of permitting the mentally capable to proceed through elementary and secondary school at a more rapid pace; (4) That the school system assume the burden of physical and social training so largely neglected by home and other institutions.

After the conditions giving rise to these demands have been described, an explanation will be given of the corrective methods proposed and being tried by the junior high school.

**2. Leakage in the Seventh, Eighth, Ninth, and Tenth Grades.** In a report to the city superintendent of schools, a committee of school principals of Los Angeles as long ago as 1911 compiled some facts concerning withdrawals in that city. In the years 1896 to 1911, inclusive, there was an average dropping out of school as follows: From the fifth grade, 18 per cent of those registered in that grade; from the sixth grade, 20 per cent; from the seventh, 30 per cent; from the eighth, 17 per cent. No record exists to show how many of those completing eighth grade failed to enter ninth. But 54 per cent of ninth grade registrants withdrew before beginning the

tenth grade; and similarly 45 per cent of tenth grade registrants failed to enter the eleventh grade. Without taking into account the withdrawals between eighth and ninth grades, the report would seem to show that of a thousand pupils entering fifth grade 820 would continue through the fifth grade, 656 through the sixth, 459 through the seventh, 381 through the eighth, 176 through the ninth, and 97 through the tenth. No wonder that people interested in an educated society demanded a change in our school system.

In Grand Rapids, 24 per cent of eighth grade graduates failed to enter high school; in Evansville, Indiana, 44 per cent; and in the Franklin School of Berkeley, California, 59 per cent. Two early studies of elimination indicate the conditions for the whole country. Thorndike found that, of a hundred pupils who finish sixth grade, 79 stay through the seventh and 59 through the eighth; of one hundred entering high school, 33 drop out in the ninth grade and 25 in the tenth. Ayers found very similar facts.

Such conditions as shown above were arousing the interest of educators and laymen in the years which saw the beginning of that movement for reorganization of education which culminated in the creation of the junior high school. Many educators believed that these evil conditions were in large part due to, (a) a too long elementary school period; (b) dry and unappealing studies in the seventh, eighth, ninth and tenth grades; (c) abrupt changes in methods of teaching after leaving the elementary school, especially sudden throwing of the child upon his own responsibility. In some places attempts were made to correct these evils by introducing manual training and foreign languages into the upper grades of the elementary school, by departmentalizing the seventh



and eighth grades, and by organizing conferences of the teachers of the four grades affected.

In other places school officers insisted that reforms could be made thorough-going only by the creation of an entirely new educational unit. The junior high school seemed to present the best solution. Being new and unfettered by traditions it could be made an opportunity school for trying all sorts of means for checking undesirable elimination.

They planned to reduce dropping out of school in the seventh and eighth grades by keeping children interested in school work. The common branches, if taught at all, were effectively changed in nature and content. If arithmetic had to be left in the curriculum, it appeared as bookkeeping or elementary accounts. New subjects were added—subjects that appealed to the imagination and ambition of young people. The real telling work of the big outside world was brought into school and the youngsters had a chance to partake of the things in which they were interested. In a new building these large boys and girls were no longer hampered in their work and play activities by the presence of little children.

The junior high school functioned in preventing elimination from ninth and tenth grades by bridging the chasm between elementary and high school through gradual departmentalization of work, by introducing new and difficult studies singly rather than all at one time, by employing sympathetic teachers of boys and girls rather than scholastic specialists, by gradually leading the pupil to assume and bear responsibility, and by giving him work that appeals to his immediate interests and ambitions.

That the junior high school helped to retain pupils in school is attested by a number of published reports. In Grand Rapids, Michigan, the enrollment in seventh,

eighth, and ninth grades was increased 25 per cent for each grade—all within two or three years of the first establishment of the junior high schools. For several years prior to 1913 the enrollment in each grade had remained stationary, perhaps declining a little. As soon as the junior high schools were established in 1912, the enrollment began to increase, first in the seventh, then in the eighth, and finally in the ninth. Table I is adapted from Mr. Stetson's report.<sup>1</sup>

TABLE I.—SHOWING THE INCREASED ENROLLMENT IN GRAND RAPIDS UPON THE ESTABLISHMENT OF JUNIOR HIGH SCHOOLS IN 1912

	Seventh grade	Eighth grade	Ninth grade
1908	1091	946	635
1909	1087	1039	626
1910	1063	1053	693
1911	1161	992	713
1912	1082	1072	804
1913	1262	990	829
1914	1188	1140	984
1915	1272	1097	1135
1916	1346	1296	

Similar results were obtained by Superintendent V. L. Mangun<sup>2</sup> at Macomb, Illinois, where the junior high school was started in 1915-1916. The enrollment in grades one to six, inclusive, remained stationary from 1913 to 1917; through the first four of these years enroll-

<sup>1</sup> Stetson, Paul C., Statistical Study of Enrollment in Junior High Schools. School Review, April, 1918, p. 233-245.

<sup>2</sup> Cf. Mangun, V. L., 6-6 Plan at Macomb, Educational Journal, April, 1918, and One Motive for Organizing the Junior High School, same magazine for February, 1917.

ment in grade seven declined from 83 to 81. In the second year of the life of the junior high school, enrollment in grade seven jumped from 81 up to 123. In 1915 junior high schools were organized in Pomona, California, and during the next three years their influence was felt in the stimulated enrollment in the grades included, and beyond. In both Macomb and Pomona the increased enrollment was fully 25 per cent over what it would have been without the junior high school.<sup>1</sup>

Superintendent Horn of Houston reported to his board in 1917: "The most easily measurable result of the junior high schools is in the matter of attendance. In 1913-14 the attendance of white children in the high school of Houston was 1341. In 1916-17 the high school enrollment was 2091. This shows an increase of 56 per cent in high school enrollment in three years, which is more than

<sup>1</sup> In Pomona the war was affecting the enrollment very adversely so that each grade was ordinarily losing fully 6 per cent or 7 per cent of its enrollment from one year to the next. The following table shows the per cent of students who remained in Pomona and enrolled in the various grades. In 1914 only 92 per cent of those enrolled in the 7th grade in 1913 remained to enroll in the 8th grade, etc.

	7th-8th, per cent	8th-9th, per cent	9th-10th, per cent	10th-11th, per cent
Sept. 1914.....	92	86	93	84
Sept. 1915.....	100	99	87	80
Sept. 1916.....	<u>93.9</u>	<u>92</u>	<u>92</u>	71
Sept. 1917.....	<u>88.3</u>	<u>90.5</u>	<u>96.7</u>	<u>95</u>

The percentages underscored are those affected by the Junior High School.

double the rate of increase in the elementary schools."<sup>1</sup> In other words the junior high school had increased the enrollment fully 29 per cent in three years, or 10 per cent per year. The increase caused by the junior high schools in Los Angeles, was 13 per cent per annum.<sup>2</sup>

In spite of the adverse conditions of the World War period, the junior high schools were everywhere showing a large power of preventing elimination of pupils from the seventh, eighth, ninth, and tenth grades.

As the war was coming to an end, several states enacted new compulsory attendance laws which required children to attend school to such an age as to include a large part of those subject to junior high school. In such states the problem of preventing elimination has changed to one that may be stated as follows: How can the junior high school so organize and conduct its work that by its influence young people will be held in and through senior high school? This problem was submitted to several groups of teachers in Southern California gathered together for the study of the junior high school. A summary of their suggestions may not be out of place here.

<sup>1</sup> Annual Report of the Public Schools, 1916-17, Board of Education, Houston, Texas, 1917.

<sup>2</sup> Cf. Reports of the Advisory Committee to the Board of Education of the City of Los Angeles, 1916, page 92. In reporting their findings to the Board of Education the surveyors—Doctors Jessup and Shiels—said: "Out of the grand total of 4667 intermediate grade students enrolled in the 7th and 8th grades, 52 per cent are in the 7th grade and 48 per cent in the 8th grade. In the non-intermediate schools, out of 4123 children enrolled in the 7th and 8th grades, 55 per cent are enrolled in the 7th and 45 per cent in the 8th grade. It is important to note that the intermediate school has been somewhat more successful in holding 8th grade students than has the non-intermediate school." The Junior High Schools held 92.3 per cent of its pupils, the non-intermediate 81.8 per cent. 92.3 is 13 per cent greater than 81.8.

	1920, per cent		1921, per cent		1922, per cent		1923, per cent		Average
	Jan.	June	Jan.	June	Jan.	June	Jan.	June	
Washington.....	66.4	69.3	73	59.5	71.1	65	71.8	62.9	67.1
Jefferson.....	.....	.....	87.2	79.8	73.5	76	72.8	75	76.7
Madison.....	.....	.....	.....	.....	.....	.....	.....	79	79
Average of three junior high schools.....									71.2

**3. Vocational Guidance vs. Choosing a Wrong Life Occupation.** Another social problem that was giving the school teachers and the public much concern at the time that the junior high school idea was taking shape had to do with choosing a vocation. The good of both the individual and of society is largely dependent upon the youth's discovering at the earliest age possible the vocation or vocations for which he is best fitted by nature and by other conditions. It is desirable that a selection should be made early enough in life to permit of thorough preparation for such occupation before he is compelled to work full time for a living. Just as youth is the time for all other types of formal schooling, so it is the age for vocational education.

While it is desirable to make a selection at a reasonably early age, it is of still greater importance that a suitable choice be made. A wealth of material has found its way into print in recent years—pointing out the evils arising from choosing the wrong vocation. The following is a typical statement:

Some years ago it was very noticeable that in finishing college or high school the graduate was often at a loss to know what to do. Many, if not most, of them drifted into whatever vocation presented itself, regardless of whether they were fitted for it by nature or nurture. The socially inclined man who would become happy and successful in a job which called him to mix with his fellowmen frequently found himself bound to the work-bench or the desk, while the bookworm and socially-shy often eked out a miserable existence trying to be a jovial good fellow when his very soul pined for quiet and a type of work suited to his make-up. Work seems essential to happiness, but probably most of the failures in life and a very high percentage of the unhappiness in the world is the result of the man or woman drifting into an occupation with no intelligent idea as to the requirements—physical, mental, and emotional—of the job.<sup>1</sup>

<sup>1</sup> Occupational Studies for Boys: Junior High School. Department of Education, State of Alabama, Division of Secondary Education, 1924, p. 4.



There is a large number of failures in business attributable to the unfitness of the employer or the employees for the work. In 1915 there were 22,156 such business failures in this country. Every adult could cite from his own acquaintance several persons trained and licensed for certain professions who have failed in them. There are other causes that have contributed to failure, but wrong choice stands out as a prominent cause.

Even if the misfit manages to hold the job into which he drifts, he is unhappy in his work. This unhappiness and failure to win promotion affect his family relationship, bringing about pessimism and distress. Society, also, finds itself cheated out of what it must expect of each individual. It may even have partially to support the misfit's family. Such cases absorb its resources and stand in the way of large programs of creative and developmental work. Society feels keenly the momentary loss when an otherwise capable person fails on account of a wrong vocational selection to contribute his share to social institutions and especially when he becomes a burden for others to carry.

Methods of vocational guidance usually embrace one or more of the following methods or steps: (1) Stimulation of vocational interests and increase of knowledge of requirements of the various vocations by a course in Occupational Information and Analysis. (2) Determination of aptitudes by giving such general intelligence tests, mechanical ability tests, and batteries of aptitude tests as exist. (3) Putting the pupils through organized try-out or exploratory courses to ascertain what occupational processes are most easily performed. (4) Case-study of each pupil by the adviser.

A typical plan is that carried out in the Alabama Junior High Schools. Speaking of the course in Occupational Information, the state bulletin says:



In the first semester of Junior High School I. a general survey course is given. The text for this course is *Our Community and Its Problems*, by Ziegler and Jacquette, a book which has been written with Alabama's needs to the foreground. The purpose of this course is to impress upon the beginning junior high school pupil the necessity of realizing that some time or other he will have to undertake an occupation and to give him in a brief, inclusive way a general knowledge of the whole field. No attempt should be made to have the child choose an occupation but at the end of the course whenever an occupation is brought to mind the boy or girl should definitely react toward that occupation in an analytic manner. They should immediately begin to wonder just what the specific skills and requirements of that job are, and they should wonder so strongly that there will be an inward urge to find out about it. It is believed that this may be accomplished by practice in job analysis. Edgerton and Cunliff's analysis outline is used as a form for such practice.<sup>1</sup>

Determination of vocational aptitudes by means of tests is limited in its scope by the paucity of tests designed or combined for this purpose. However, tests for general intelligence should reveal the occupational level to which the youth might be encouraged to aspire. Stenquist's tests and Macquarrie's test for mechanical ability are serviceable in determining relative mechanical ability of young people. Seashore's tests for musical talent, Ruggles' tests for clerical office work, Rollinson's diagnostic shorthand test, and others, might well serve some purpose in vocational guidance in the junior high school.<sup>2</sup> Considerable research is being carried on at this time in (1) the ascertainment of intelligence levels of various occupations,<sup>3</sup> (2) the invention of new tests for aptitudes or the discovery of aptitude-detection elements in old tests or groups of tests, and (3) the invention of tests

<sup>1</sup> *Occupational Studies for Boys*, Alabama, p. 4.

<sup>2</sup> Cf. Toops, Herbert A., *Trade Tests in Education*.

<sup>3</sup> Cf. Bennett, G. Vernon, *Mental Levels of Electrical Workers*, *Commerce Journal*, Los Angeles, October, 1923.

for certain native or acquired characteristics that serve to advance or impede success in various occupations.<sup>1</sup>

Junior high schools have quite generally adopted some types of vocational exploratory or try-out courses. Unfortunately, up to the present these have quite generally been confined to a limited number of trade or industrial occupations and to a still smaller number of clerical occupations. It would seem as if they might well be extended to the professions, semi-professions, agricultural pursuits, business occupations, and public employments. Alabama has made considerable progress in the industrial lines and a beginning in agriculture. Covering a year and a half of the pupil's time in 7A and the whole eighth grade, each junior high school offers its pupils work in six of the following ten units: Agriculture, plant; agriculture, animal; building trades—two courses in woodwork, and one in concrete; electricity; auto mechanics; forging; sheet-metal work; drafting. The exploratory course in clerical work most frequently takes the form of basic principles and practices fundamental to all such occupations rather than try-out in the work of specific clerical vocations. Thus the course recommended by the State Board of Education of Arkansas:<sup>2</sup> units of commercial English, commercial geography, penmanship, spelling, commercial arithmetic, elementary bookkeeping, typewriting, and clerical practice.

It would seem as if Vocational Exploration is advancing very timidly, due possibly to the fact that the Junior High School finds it difficult to shake off the curriculum and courses it has inherited from the elementary school

<sup>1</sup> An interesting test to discover Potential Delinquency in Boys by A. S. Raubenheimer of the University of Southern California, has possibilities as a test for special vocational disabilities.

<sup>2</sup> Course of Study for Junior High Schools, State Board of Education, Little Rock, Arkansas.

seventh and eighth grades, and the high school ninth grade. There are also the restraints that proceed from college requirements and from state laws that set up specific courses that must be taught in these grades. Meanwhile, it may not be out of place to state a few lines along which experiments may be undertaken.

1. Commercial try-outs might be attempted in (a) storekeeping, (b) wholesale and insurance salesmanship, (c) hotel keeping, (d) contracting, (e) banking, (f) secretaryship, (g) general office clerking, (h) stenography, (i) bookkeeping.

2. Try-outs for literary occupations: (a) newspaper reporting, (b) advertisement and semi-advertisement writing, (c) acting, (d) preaching, (e) law-practice, (f) librarianship, (g) teaching, (h) printing.

3. Try-outs for science-occupations: (a) photography, (b) chemistry, (c) healing, (d) geology and assaying, (e) nursing, (f) plant-agriculture, (g) animal husbandry.

4. Specific agricultural try-outs: (a) diversified farming, (b) cereal or other single-crop farming, (c) orcharding, (d) stockraising, (e) gardening, (f) dairy farming, (g) landscaping and floriculture.

In the earlier history of vocational guidance, the individual conference was emphasized. To enable the adviser to counsel intelligently, a scheme was devised of keeping a record card upon which grade teachers and others recorded their observations concerning the pupil. The adviser likewise entered upon this card records of his visits to the home of the youth, of answers to questions put to him, etc. In the hands of such counselors as Mrs. Wooley in Cincinnati, Mr. Bartlett at Pomona, and Miss Alltucker<sup>1</sup> at Berkeley, this plan grew into a highly

<sup>1</sup> Miss Margaret Alltucker has embodied her experiences, experiments, researches, and methods in a doctoral monograph. Mr. L. W. Bartlett described his methods in a pamphlet issued by the Pomona, California, City Board of Education, March, 1917.

valuable "case-study" method. It has obvious merits, and when used by a sympathetic adviser becomes the best plan yet devised. For, of course, the record card will contain all the information gotten by the teachers from observations in the class in Occupational Information and in the try-out courses, likewise the results of general intelligence and specific aptitude tests. There is danger that the records will not be kept up, or that they will not be used by the counselor, or that the whole business will become so "wholesale" and departmentalized that it will lack the warmth and personal touch necessary to good vocational guidance.

In the past five years vocational guidance ideas and methods have been extended to moral, social-civic, and avocational guidance, quite generally included in the generic term educational guidance. All types of guidance have been made an especial feature of the junior high school.<sup>1</sup>

**4. Economy of Time vs. Delayed Entrance into Skilled Vocations.** Expression to the feeling that men are being delayed too long in their preparation for a profession or other skilled occupation was voiced in the last decade of the nineteenth century by eminent educators. The conditions of which they complained have become much aggravated during this century. Curriculums in law and medicine, which not so long ago could have been commenced immediately after graduation from high school, must now be preceded by at least two years of college work. Other professions are following in the same way. Girls cannot begin their training for teachers or for nurses until they have completed high school, and even the path to a thorough education for stenographic secretaryship leads through the high school before serious

<sup>1</sup> This is unusually well elaborated in Tyndall and Myers' *Junior High School Life*.

vocational study is taken up. This period of preparation for the professions is still further lengthened by the tendency to make the professional curriculum itself more extensive.<sup>1</sup>

No less is this true of the skilled artisan's trades, of large-scale and technical agricultural pursuits, and of commercial occupations. Trade schools—such as Dunwoody Institute, Bradley Polytechnic Institute, and the Lick-Wilmerding School—once satisfied if the applicant for admission had even a grammar school education are now urging candidates to get some or all of a good high school education before attempting their technical curriculums. The plan of agricultural education in Connecticut contemplates job-and-school training over a period of ten years beginning at the age of fourteen: when the Smith-Hughes Act was passed—only eight years ago—it was intended that the training should be completed in four years. The best business schools today quite generally insist on high school graduation as a prerequisite and require two years for completion of their curriculums.

The tendency everywhere is to insist upon high school graduation as a prerequisite and to lengthen the period of vocational training—that is, for the professions and other skilled vocations.

It is precisely into these occupations that young folks with intelligence and ability above the average will aspire, or should be encouraged to aspire, to enter. Yet these persons under the old regime were compelled to spend eight years in elementary school. Only in high school could they push ahead and complete four grades in three or three and a half years, this by reason of the

<sup>1</sup> Two-year normal schools have become three-year teachers colleges; two-year law schools, three-year schools of jurisprudence with degree of Juris Doctor.



scheme of promotion by subject. Even here there was a strong tendency to hold back the superior student by one or more of the following conditions: (a) the tendency of teachers was to make the work in any course as difficult as the best students could master, thus preventing them from carrying five subjects and finishing the high school in less than four years; (b) class spirit was fostered to such an extent that a highly capable student preferred to remain with his class rather than become an irregular and eventually advance to the class ahead of his; (c) graduation from high school and entrance to college at the middle of the year was unpopular,—so much so that the capable student preferred to remain through to the summer graduation.

Added to the “lock-step” in elementary and high school as the cause of delaying young men in entering upon their vocations are many other causes which aggravated the problem and brought it acutely to the attention of educators at the time that the school system was undergoing that reorganization which culminated in the creation of the junior high school. Such causes of retardation as the following may be mentioned: moving of parents from one city or state to another; not entering the pupil in school until the age of seven or eight; ill health and low vitality of the pupil; being kept out of school by parents; poor teaching; short annual school term.

The evils claimed for late entrance into one's skilled vocation may be summarized as being: (1) It shortens the length of time one can serve society; (2) it delays marriage so long that bachelorhood becomes a confirmed habit; (3) if, on the other hand, a man marries before establishing himself in his occupation, there are serious dangers and handicaps that may prevent his ever succeeding in business or in his family relations; (4) the



young man just graduating from high school, feeling himself too old, is discouraged from embarking upon a course of vocational training that cannot be completed before he is twenty-five or twenty-six; (5) the long period of preparation is so costly that parents cannot afford to sustain him, nor can he afford at his age to take time off for earning the means for sustaining himself in school.

Several plans have been used in the junior high school to facilitate the completion of its curriculum in less time than one year to a grade. The most common plan is that of promotion by subject, two promotions each year. Presumably the curriculum is made of a sufficient number of courses and each course of sufficient difficulty to fit the abilities of the average pupil. That is, a pupil of average or near-average ability can proceed through the curriculum completing a grade a year without failing in any course. Those pupils somewhat below the average group will fail in certain courses from time to time and thus will finish the three grades in three and one-half years, the poorest pupils taking even four years to complete three grades. Pupils considerably above the average in ability cannot proceed more rapidly than the average group unless some plan is provided by which he can carry more courses at one time than does the average group. If he is permitted to carry additional courses, he can finish the required *number* of courses of the three grades in somewhat less than three years, say in two and one-half years.

A second plan provides a basic curriculum which fits the abilities of the lowest one-half of the pupils. Commonly this curriculum in the seventh and eighth grades consists of the common-school branches slightly changed in nature and amount of content. Children who have shown ability above the average while in sixth grade are permitted to take a course or two in addition to this basic

curriculum. Probably most frequently these extra courses are in a foreign language. They give high school or college-entrance credit. In this way the brighter pupils may complete four grades in three years and enter senior high school with one and one-half or even two grades of high school work completed.

The essential elements of these two types may be stated thus: In the first type, the number of *grades* in the junior high school is fixed—usually three—the pupils taking different lengths of time to complete the full curriculum. In the second, the number of *years* to be spent in the junior high school is fixed, the pupils completing in that time a varying number of grades. The first plan seems to be at present the most popular.

A third plan that might or might not embrace one of the above plans, provides three essentially different curriculums: one, culminal or finishing, of a general nature, leading directly into a simple occupation and preparing directly for life; a second, forming a complete curriculum in itself, but conceived of as a basis upon which a senior high school of three years may be built; a third, forming a continuation of elementary work mingled with secondary school courses. If the junior high school maintains a curriculum preparing directly for life and an occupation, boys may begin vocational curriculums immediately after completing the sixth grade, and may thereby complete their vocational training at a much earlier age than would have been the case where they must complete the eighth grade before taking up vocational training. Rochester provides curriculums of this type in its junior high schools.<sup>1</sup> The second and third curriculums may be completed by the brightest pupils in less than three

<sup>1</sup> Rochester Junior High Schools offer Commercial, Household, and Industrial Curriculums. *The Junior High Schools of Rochester*, pp. 91-99.

years' time. Pursuing the third curriculum the brightest pupils might earn additional high school credits, materially shortening their stay in senior high school.

A fourth plan for saving time and thus enabling persons preparing for skilled occupations to enter upon their life-work earlier than has been possible under recent extensions of the training period, makes a radical change in the whole public school curriculum. It assumes that the fundamental processes can and should be completed in the first six grades and, by the pupil of average or above average ability, in six years. Advocates of this fourth plan would not greatly change the content and nature of subjects now taught in high school, but would have a full program of such subjects begun in the seventh or eighth grade. If begun in the seventh grade high school courses would be spread over a somewhat longer period of time than when begun in the ninth grade. Methods of teaching such subjects would be adapted to the age and mentality of younger children. Thus ninth-grade general science, algebra, foreign language, world history, and other branches would be begun in the seventh grade. There are good reasons for believing that such younger pupils of average or above-average ability could complete ninth grade algebra in one and one-half years; likewise other courses. Thus the eight year-courses usually taught in ninth and tenth grades would be completed in the three years of junior high school. Some classes might in seventh grade take enriched common branches and perhaps one high school branch; they would begin regular full ninth grade work at the beginning of the eighth grade. The experiments carried on in Pomona, California, showed that eighth grade pupils can carry ninth grade subjects satisfactorily and can complete in one year of nine and one-half months

the minimum amount of work in each course which has been standardized for ninth grade.<sup>1</sup>

After the junior high schools had become fairly well established in certain districts of Los Angeles, a study was made of the economy in pupils' time produced by the new school. Table III shows how the junior high school plan shortened the length of time required to complete the whole high school curriculum.<sup>2</sup> It is to be interpreted thus: Under the grammar school plan (i.e. in those districts of the city where the junior high school had not yet been established) only seven per cent of high school graduates completed the full four grades of high school work in three and one-half years; whereas, under the

TABLE III.—SHOWING COMPARATIVE RECORDS IN HIGH SCHOOL FOUR-YEAR CURRICULUMS OF PUPILS WHO DID NOT AND OF THOSE WHO DID ATTEND JUNIOR HIGH SCHOOL

Years required to complete 4-year curriculum	Pupils who did not attend a junior high school		Pupils who attended a junior high school	
	No. of pupils	Per cent	No. of pupils	Per cent
3	14	1	5	2
3½	82	7	30	19
4	861	70	105	69
4½	209	17	12	8
5	57	5	3	2
Total.....	1223	100	155	

<sup>1</sup> In Pomona, California, such a plan was in use from 1915 to 1919. Scores of boys and girls thereby completed the tenth grade one year earlier than they would otherwise have done. These students completed senior high school, and many their college curriculums one year earlier and without handicap or loss of valuable experience.

<sup>2</sup> Table and data from Report of the Advisory Committee, 1916, p. 96. The study was made by Doctors Walter A. Jessup and Albert Shiels.

junior high school plan nineteen per cent completed the four grades in three and one-half years. Under the grammar school plan seventeen per cent spent four and one-half years in doing the four grades, but under the junior high school plan only eight per cent were thus delayed. Similarly the number requiring five years was reduced by the new plan from five per cent to two per cent. Los Angeles at that time (1916) was following the second plan described above.

**5. Making the School System Fit the Needs of Adolescent Children.** Some of the complaints levied against the 8-4 system of schools involved the seeming inability of the schools under that plan to meet the needs of boys and girls at the transition period of their lives, which accompanies early adolescence. It was commonly believed that this period of approximately three years is fraught with the gravest possibilities of danger—physically, mentally, and morally; and that, since the child is so many days of the year and so many hours of the day in school, it is the duty of the school system to give the pupil such training as would prevent any evil consequences resulting from such dangers.

The following dangers, for one reason or another, seem to be especially insidious at early adolescence:

1. Arousal of sex curiosity leading to thinking about sexual matters, practising self-pollution, participating in "wild parties" and other sex excitations.

2. Arousal of social interest in the opposite sex leading to puppy love, dance-craze, waste of time on social affairs, excessive reading of mushy love-stories, late hours, moving pictures, silly school behavior and inattention to business,—and quite frequently love-heroics (shooting strict parents, rivals, or the "loved" one, committing suicide, running away from home and society, or even consummating a secret marriage!).



3. Vigorous renewal of the desire to do as adults are seen to do and to be considered adult, accompanied by the chance to fulfill the desire. Now the boy commences or recommences to smoke, to swear, to bet, to borrow money for "eats," to stay out late at night, to play pool, to carrouse through the streets with other boys, to "ditch" school, to dissipate his school time, to fight with boys from other parts of town (especially boys somewhat smaller), to steal in order to meet new needs for money or purely for adventure, and to talk "big and violent." Similarly the girl commences to chew gum more vigorously, to "work" the boys for rides and picture-shows, to show off silk stockings, to go to social dances, especially now with much older boys, to disobey parents, to enter the social life of the school to the neglect of the intellectual phases.

Educators agree that these dangers are to be met by (1) manly and womanly physical exercises and games that call for clean living, that tire the body and soothe the passions, and that absorb the interests; (2) diverting the thoughts of youth from the opposite sex as long as possible by stimulating other interests, and making the sex-interest unpopular at this age; (3) removal of the example of older boys and girls as completely as possible from the younger ones, and controlling the social and school environment of the younger adolescents so as to lessen exposure to sophisticating influences.

The junior high school as a new institution unfettered by chrySTALLIZED procedures can be organized with these three objectives clearly in view. Much more time and much greater effort can be placed upon physical education through games, plays, and manual educational work. The curriculum can be made to embrace cultural, social-civic, and prevocational studies of the most entrancing



nature; each pupil permitted, yes encouraged, to take courses that already interest him; and the teachers imbued with a passion and an ability to stimulate and retain the pupil's interest and absorption in the curricular activities of the school. In curricular and extra-curricular activities anything that tends to arouse puppy-love may be rigidly excluded, and other things introduced to take its place. Finally, by the junior high school plan, early adolescent children are separated in school from the advanced adolescents, and to that extent removed from the temptation to ape them.

It is, of course, unfortunate that many of the earlier principals and teachers in junior high school did not realize the purpose of the new institution nor the opportunity for educational reform which it offered. In fact the junior high school was made to aggravate the evils that existed under the old plan. The writer has personally observed in various junior high schools the following perversions.

PERVERSION 1. Physical education was limited to indoor gymnastics, and the spontaneous interests of pupils in play and games were suppressed.

PERVERSION 2. Physical education was organized entirely on the senior high school plan, and spectacular inter-city games scheduled with attendant swagger, betting, and rowdyism.

PERVERSION 3. Certain features of the elementary curriculum (become now as dry as dust) were retained in the seventh and eighth grades with the purpose—it seemed—of killing the pupil's interest in the curriculum.

PERVERSION 4. The teachers carried out with the junior high school pupils the exacting methods of high school, leaving the pupil completely to his own unaided abilities to swim or sink.

PERVERSION 5. Social parties, dances, and other associations of the sexes on a distinctly adult line and as poorly chaperoned as was ever permitted in high school were organized by the school. Protest from a few parents went unheeded. Eventually the children organized out-of-school club affairs which they attended on the nights of the school dances, the parents imagining their youngsters at the school under careful chaperonage.

PERVERSION 6. Love-stories of the most suggestive character were taught in all the junior high school grades, introduced by compulsion to children at an age five or ten years before they would have developed an interest in them outside of school.

If these methods had been practised generally, the junior high school would have become a training-place for sophistication or infantile perversion.

But most educators have found in the junior high school plan an opportunity to do the right kind of new things and to do the old things in a better way. An analysis of the population at approximately the junior high school age will reveal more clearly the problem and the method of adjusting education to the needs of such children.

Four factors of the population varying with regard to each other have important bearing upon the problem of the junior high school. They are chronological age, physical maturity, mental age, and educational age. It is true that even in the elementary grades the first, third and fourth of these factors differ widely among themselves; but in the period of the junior high school the factor of physical maturity aggravates the difficulties for the first time.

It would be an easy matter to organize a school for a fairly homogeneous group of pupils. The senior high school often presents such a situation; the pupils in grade

eleven, for instance, are practically all seventeen years of age, they are of the same mental age, and are all post-pubescent (that is, in advanced adolescence). In the reorganization of the school system, therefore, an attempt has been made to distribute the twelve grades into such groups as would produce two or more groups of fairly homogeneous pupils, even if into another group had to be placed a decidedly heterogeneous mass. Inglis in his study of the distribution of pupils by degree of maturity among the grades of the Patterson, New Jersey, schools, found that by the 8-4 arrangement the children in the elementary school were highly heterogeneous and likewise those in the four-year high school. For both sexes 80 per cent were prepubescent, nearly ten per cent pubescent, and over ten per cent postpubescent in the elementary school; while over nine per cent were prepubescent, nearly thirteen per cent were pubescent, and 78 per cent were postpubescent in the high school. By grouping grades on the 6-3-3 plan, only six per cent and 4.5 per cent of the children in elementary school were pubescent and postpubescent respectively, and only 4 per cent and 7 per cent of high school pupils were prepubescent and pubescent respectively. Thus these two schools became almost homogeneous in themselves, the elementary school having 89.4 per cent of its population prepubescent and the senior high school 88.6 per cent of its population postpubescent. The junior high school then became extremely heterogeneous: 33.7 per cent prepubescent, 20.6 per cent pubescent, 45.7 per cent postpubescent.<sup>1</sup> By this plan the junior high school can specialize on the education of heterogeneous groups of children.

Similar results can be obtained for grouping children by height and weight. Burk<sup>2</sup> prepared a table from

<sup>1</sup> Inglis, *Secondary Education*, pp. 28-29.

<sup>2</sup> *Idem*, p. 9.

Boas' Measurements, showing that boys measure on an average fifty inches in height at 9.5 years of age and gain on an average each year thereafter the following percentage of their previous heights: 3.8 per cent, 3.3 per cent, 3.4 per cent; 3.8 per cent, 4.3 per cent, 4.8 per cent; 3.2 per cent, 2.5 per cent, and 1.4 per cent. These three groups of years correspond roughly to the three grammar grades, the three junior high school grades, and the three senior high school grades. It shows much greater changes in height from year to year in the middle group of years than in the first or third group. The results were similar for weights of boys. Girls showed the same tendencies, but to get similar results one would have to begin a half-year earlier with girls. For boys especially, therefore, and to some extent for girls, the junior high school becomes a school of heterogeneous heights and weights.

By prevailing methods of promotion, grades seven, eight and nine will not show such extremes of heterogeneity in mental ages or chronological ages as the three grades below. But by the plan of promoting to junior high school of all pupils over-age by two years in the sixth grade, the grammar grades will be rendered much more homogeneous than at present. Likewise, if vocational classes under the Smith-Hughes Act are maintained in junior high school, it will become much less homogeneous than it has been in the past. Both of these plans are becoming more and more generally followed. It seems as if the junior high school is to become the great complex, the adjustment school of the near future. In the educational mechanism it plays the part of a differential, receiving the varying groups from the school below, equalizing opportunities and sending the pupils on to the high school, the vocational school, or out into life and the continuation or part-time school.

If, then, the junior high school is pre-eminently an institution for heterogeneous pupils, it would seem that a large part of the work of the school must be the so-called extra-curricular activities. And it is precisely in these freer and more spontaneous associated activities that it has come to have the most unique developments. The whole "guidance" program functions best in pupil clubs, athletic sports and games, occupational excursions, home and school "chores," vocational and social-civic projects, "boy-scoutism," auditorium exercises, Daltonized work-rooms, Garyized spaces for keeping of pets, gardens, art and life-interest displays, socialized committee study, and the like.<sup>1</sup> The Lew Wallace Junior High School in New York City sets aside five periods of school time per week for radio, camera, biology, swimming and thirty other clubs.<sup>2</sup> Many junior high schools emphasize in their programs of work a determined and intelligent effort to adapt the school to the needs of this cosmopolitan population of pre- and early adolescents.

The curriculum, the school life, the building plant, the technique of teaching and administration, the training of teachers, the preparation of books, equipment and materials—all breathe the spirit of a new school, necessarily different from the elementary school and the senior high school, preferably removed in space from them, but so closely articulated with them that no abrupt changes may break the continuity of educational effort.

**Conclusion.** The junior high school came into existence as the result of a feeling upon the part of educators and laymen that the 8-4 plan was unable to solve certain difficult problems. The problems that stood out most clearly were, (1) how to check the large undesirable elimi-

<sup>1</sup> Cf. Tyndall and Myers, *Junior High School Life*.

<sup>2</sup> Developing Individuality—an editorial—*American Educational Digest*, October, 1925, p. 62-63.



nation of pupils from school, (2) how to get young people started upon a suitable vocational career, (3) how to make it possible for people headed for the professions and semi-professions and occupations requiring comparable preparation to advance more rapidly toward their goal, and (4) how to give the heterogeneous population just entering the period of adolescence a type of education more suitable to their evident needs.

It must not, of course, be inferred that the fundamentally universal objectives of education are ignored, submerged, or even lessened in this new institution. A subsequent chapter will treat of these universal objectives as they function in the program of the work of the junior high school. It is proper, however, that the problems as set forth in this chapter should be clearly kept in mind as they influence the accomplishment of the "long-pull" purposes of our public school system.



## CHAPTER II

### HISTORY OF THE MOVEMENT

The plan of this book is first to explain the junior high school movement, and then to describe the school as an institution. The first four chapters are devoted to the first topic. In chapter 1, it was explained how conditions alleged to be caused or permitted by the school system had become so bad that the public made certain specific demands for reform. The school system organized on the 8-4 plan did not seem to be able to meet these demands, hence the reorganization of the school system and the creation of a junior high school. The newly created school undertakes to bring about the desired reforms.

This chapter goes into the history of the junior high school from its inception, describing its prototypes in Europe and America and the establishment of the first successful junior high schools in this country; relates how the National Education Association, after deliberating over the problems for many years, finally took fire and became a mighty crusading force, how the new schools sprang up all over the land. The chapter closes with a brief description of the various plans tried in widely scattered parts of our country.

**1. Foreign Systems.<sup>1</sup>** As the new division of the twelve grades of the American school system into two

<sup>1</sup> *Cyclopedia of Education*, Paul Monroe, editor. Articles on Education in Germany and France, Vol. 3, p. 68 and Vol. 2, p. 656 respectively.

groups of six years each was probably suggested by European schools, it seems proper to describe briefly the German and French plans as they existed at the time in which our ideas of the junior high school were taking form.

In Germany there were two distinct types of schools—one for the lower class of society, the other for the upper class. The first embraced nine years of study, beginning at the age of six and closing normally at the age of fifteen. The curriculum was divided into two parts, an elementary school of six years and an upper division of three years. The upper division was therefore begun at the age of twelve, or at the very beginning of adolescence. The six preliminary classes only were taught in the common schools. The six elementary grades and the upper three grades were taught in the *Bürger-schulen*. The upper division was distinguished from the lower by the introduction of English and Latin in the first year and by an increase in the number of recitations per week.

The second type of school, i.e., that for the upper classes, had also a curriculum embracing nine years, but it took the pupil at nine years of age and carried him through to eighteen years of age. The pupil entered this school able to read and write and with some knowledge of numbers. This type of school was divided into three divisions—a lower stage of three years, an intermediate stage of three years, and a higher stage of three years. There was no sharp distinction between the lower and the intermediate stages, but in general it may be said that somewhere near this dividing line the study of French, English, or Greek was begun; the number of recitation periods per week was greatly increased; history and algebraic and geometric mathematics were taken up; penmanship was discontinued;

and pupils were allowed a certain amount of election of subjects. There was no break whatever between the intermediate stage and the higher stage, unless the increase from thirty-five to thirty-six recitation periods per week can be so considered.

The fact stands out clearly that what we call secondary education began with the twelfth year of age in both lower-class and upper-class schools in Germany. The intermediate stage of the schools for the children of the upper-class people corresponded to the highest division of the *Bürger-schulen* in all essential points, and both were of three years' duration. This intermediate school work stood out distinct and clear from the foundational type of work that preceded it.

In France there were free schools and pay schools. The elementary free or common school began at six years of age and extended through to eleven or twelve years of age. A primary diploma was awarded. This took the child to the beginning of adolescence. The common schools provided for two or three years of further education in what were called higher primary schools: complementary course, superior primary school, professional school, and manual arts apprentice school. The complementary course was conducted in the same building as the elementary school, but the other courses were in separate buildings. To enter these higher primary schools, the pupil must be twelve years of age and must have completed the elementary school. The curricula were all of three years' duration and were marked by their enrichment with what we should call secondary school subjects and with vocational or pre-vocational subjects.

The pay schools were partly supported by the nation or by the nation and community. They were variously called *lycée*, colleges, or secondary schools. They pro-

vided separate schools for boys and girls. In general the length of these curricula was five or six years for girls and seven years for boys. The curriculum was divided into two stages or cycles. The first stage contained three years for girls and four years for boys. Boys were received as young as ten or twelve years of age, and both boys and girls normally completed the first cycle by the time they were fifteen. Under the same roof that covered the lycée or college (the French college must not be confused with the American college) was conducted a primary school for well-to-do children, to prepare them for the secondary school.

The first cycle of the secondary school—lycée, college, or secondary course—was quite sharply marked off from primary schooling in that there was given an election of studies, foreign languages were begun, the number of recitations per week was increased, religion was taught, and more attention was given to the sciences and mathematics. There was no sharp division between the first and second cycles.

There was a marked resemblance between the three-year higher primary school course and the first cycle of the lycée and college. They both covered the same years of early adolescent life; they were both distinctly marked off from primary education; they were either in entirely separate buildings from primary children or were conducted as distinctly different classes.

One is struck by the parallel in the following three classes of schools:

GERMAN	FRENCH	AMERICAN
Upper division of Bürgerschulen	Higher primary school	Junior high school or intermediate high school
Intermediate stage of school for the upper classes	First cycle of lycée or college	

GERMAN	FRENCH	AMERICAN
Three year course	Three year course	Three year course
Age 12 to 15	Age 11 or 12 to 15	Age 12 to 15
Distinct from primary course	Distinct from primary course	Distinct from primary course
Merges into upper stage	Merges into second cycle	Merges into senior high school
Some election	Some election	Some election
Foreign languages	Foreign languages	Foreign languages
Higher mathematics and sciences	Higher mathematics and sciences	Higher mathematics and sciences

**2. Various Plans of Grouping Grades in the United States.** In the United States the general standard plan has been eight years of elementary education and four years of high school. However, in the New England states the grouping was until recently quite generally nine and four. In the Southern states financial distress following the Civil War prevented the communities from offering more than seven years of elementary instruction. So they have been forced to be content with a 7-4 plan. In a canvass taken in 1911 of the 669 cities of 8000 population or over, 489 had the 8-4 plan, 86 had the 9-4 plan, 48 had the 7-4 plan, 4 had the 8-5 plan, and the remainder had various modifications of these forms. Dr. Frank F. Bunker's monograph, from which the above data are taken, points out that ordinarily where the elementary course is nine years in length, the child starts to school at five years of age; where the course is eight years in length, he starts to school at six; and where it is seven years in length, he starts to school at seven.<sup>1</sup>

In every case the pupil normally finishes his elementary course at fourteen years of age, or two years later than his French and German cousins. As adolescence begins here at twelve as in Europe, we have ignored the point

<sup>1</sup> Bunker, Frank F., *Reorganization of the Public School System*, U. S. Bureau of Education, Bulletin No. 8, 1916, Washington, D. C.

they everywhere observe, namely, that adolescent education should be different from pre-adolescent.

However, Dr. Bunker's investigation shows that even before 1911 several educators had begun to attempt to make a change in the grouping so as to adapt education to the needs of the two periods of pre-maturity. Not only had the professors of education in our great universities and normal schools rebelled against the old plan, but even the administrators in our great school systems, restricted as they were by conservative public opinion, had accomplished something toward a reorganization. Still it was only an attempt, and in many cases with no clear vision of just what was needed. In some cases the changes were made because local conditions made it necessary—empty high school and overflowing grade buildings, the need of men teachers for the upper grades, or a grade building suddenly emptied by the erection of a larger one near. But it must not be forgotten that in some instances the public actually took the lead and forced the superintendent and school board to do something.

We give below a summary of these changes made prior to 1911, and the principal features of each plan:

CITY OR SCHOOL	SUPT.	YEAR	PLAN	FEATURES
Boston Latin School		1635	6 yr. H. S.	Purely college preparatory. Admitted pupils at 10 or 11 years of age. Still thriving.
Chicago		1894 1896	6 yr. H. S.	Purely college preparatory. Courses of study based upon an elementary 6 yr. curriculum.
Richmond, Ind.	Mott	1896	6-2-4	H. S. subjects in 7th and 8th grades. Promotion by subject.
Saginaw, Mich.	Whitney	1898	6-6	One year of college work. Plan abandoned.



CITY OR SCHOOL	SUPT.	YEAR	PLAN	FEATURES
Providence		1898	6-2-4	College-prep. courses, with foreign languages and algebra in 7th and 8th grades. Reg. H. S. 9-12 years.
Baltimore, Md.	Van Sickle	1902	6-3-2	Only brightest pupils permitted at end of 6th grade to enter these 3-yr. junior high schools. At end of two years of Jr. H. S. only the best pupils permitted to take the 3d yr. in junior high school.
Kalamazoo, Mich.	Hartwell	1902	7-3-2	One central senior H. S., several bldgs. containing first seven or ten grades.
Muskegon, Mich.	Frost	1905	6-1-2-3	Seven grades all in one building. 8th and 9th grades in H. S. annex.
Peabody, Mass.	Albt. Robinson	1905	8-5	Change from 9-4.
Philippine Islands	D. P. Barrows	1905	6-4-2	College subjects in last 2 yrs.
Marshalltown, Ia.	Palmer		7-1-4	8th grade departmentalized and conducted in H. S. bldg.
Aurora, Ill.	Bardwell		8-5	Some H. S. subjects in 7th and 8th gr. Fifth H. S. year, college work.
Issaquah, Wash.	Bennett	1906	6-5	Two grammar grades taken into 3 yr. H. S. and departmentalized.
Selma, Ala.	Harman	1909	7-5	Change from 7-4.
Roanoke, Va.	Hart	1910	6-2-4	Work of 12 grades in 11 years.
Rahway, N. Y.	Bickett	1910	5-3-3	H. S. subjects in 7th and 8th grades. Apart from H. S. Promotion by subj.
Olean, N. Y.	Slawson		7-5	Best pupils finish H. S. at end of 11th year of school.
Ithaca, N. Y.	Boynton		6-2-4	H. S. subjects in 7th and 8th grades. Apart from H. S.
Concord, N. H.	Rundlett	1910	6-2-3	The "2" and the "3" year schools in separate bldgs. Shortens course 12 to 11 years.

CITY OR SCHOOL	SUPT.	YEAR	PLAN	FEATURES
New York State	A. S. Draper	1910	6-2-4	Elem. education completed in six years. Real secondary work begins in 7th grade.
New Albany, Ind.	Buerk	1910	7-1-4	Merely a grouping of all 8th grade pupils in one bldg. Departmentalization.
Alameda, Cal.	Wood	1910	6-2-4	7th and 8th grades in same building with lower grades but departmentalization and principle of election introduced.
Los Angeles, Cal.	Moore	1910	6-2-4	Languages in 7th and 8th. Departmentalization.

From the above it will be seen that the new day was beginning to dawn even before the first decade of the twentieth century; that between 1900 and 1910 various plans were tried out, many of them containing one or more of the elements of the junior high school as described in Chapter 1 of this work. When at last the new plan did come into being, it came to two cities at the same time.

**3. Superintendent Bunker and the Berkeley Plan.** In 1908 Frank F. Bunker was elected superintendent of schools for the city of Berkeley, California, after having served a year as assistant superintendent in Los Angeles. He was a careful student of education, and was especially interested in a reorganization of the system of schools so that each grade would have a particular function and could accomplish the end desired of it. His study led him to the belief that the seventh and eighth grades had not been functioning—in fact, had been a stumbling block in the way of education; so much so that a large percentage of children were dropping out during those years and during the early years of the high school as a result of the failure of the public schools to do their work in the seventh and eighth years of the pupil's school life.

In January, 1910, upon the recommendation of Superintendent Bunker, the Berkeley School Board established the first junior high school in America.<sup>1</sup> The plan did not at first meet with general approval, and there is little wonder that it did not. There was to be no new building in a centrally located part of the city. If there had been such a building just completed and ready for occupancy, doubtless the problem would have been less difficult. Instead, an old grade building had to be used, and even then not all of that. The neighborhood insisted that it be allowed to continue to send its smaller children to this building: consequently only a part could be used for the junior high school classes.

Not only was this building unsuitable for the departmental work of an intermediate high school and only in part usable for that purpose, but seventh and eighth grade children of other neighboring buildings had become so attached to their own schools that they objected to being shifted. This objection was met by allowing such children to decide by classes whether they would attend the one-teacher grades to which they had been accustomed, or go to the junior high school. After the system was once established, however, pupils finishing the sixth grade were required to go to the central intermediate high school buildings. Soon the ninth grade also was retained in these buildings.

So great, however, were the difficulties, so new the plan, and so fundamental was the change, that it became necessary to appeal to the people for a ratification of the scheme. A campaign of enlightenment was undertaken, and dozens of public meetings were held to discuss the

<sup>1</sup> Columbus, Ohio, seems to deserve the credit of originating the name, which was applied to an institution having some of the characteristics of a junior high school.

matter. Parent-teacher associations, mothers' clubs, neighborhood clubs, and churches became interested in the question. At last favorable resolutions from all these organizations and assemblies were presented to the board of education, and the six-three-three plan became permanent in Berkeley. There are now several large buildings devoted entirely to the junior high school work.

**4. The Los Angeles Plan.** While Mr. J. H. Francis, at that time principal of a large polytechnic high school in Los Angeles, was traveling in Europe in 1909, he wrote from Italy a detailed report to his superintendent on his investigations in Europe and advocated the six-three-three plan for the schools of his city. Mr. Francis approached the conception from an entirely different point of view from Mr. Bunker. He was interested in the vocational phase of the question. If boys and girls will drop out of school at fifteen or sixteen years of age, they should get, while in school, some practical information and some technical skill that will help them to earn a living. Good as were the technical, commercial, and applied art courses of the high school, they very largely failed to reach the largest class of boys and girls who would use that type of education, for that class ordinarily leaves school at the end of the eighth or ninth grade.

In the summer of 1910 Mr. Francis was elected superintendent of the city schools of Los Angeles, and at once launched his plans. Influential with his board, he readily got it to embark upon a course of establishing intermediate high schools. These met, of course, the same conservative opposition that had characterized the inauguration of the plan in Berkeley. But Los Angeles was such a large and rapidly-growing community that new school buildings were being built every year. Several of the new buildings were used as junior high schools. These

very attractive homes for the junior high school at once aroused the enthusiasm of pupils and parents.

In Los Angeles the ninth-grade pupils living in certain sections were permitted to attend high school if they preferred. About 50 per cent elected to go to the high schools. Pupils expecting to continue in school through the twelfth grade generally left the intermediate school at the end of the eighth year; pupils electing vocational or prevocational courses took their ninth-grade work in the junior high school and then left school and went to work. There soon appeared however, a growing tendency for all pupils to remain their full three years in the lower school, especially when they could in these three years earn six or seven high school credits as well as complete the work of the seventh and eighth grades.

**5. Work of the National Education Association.** Although the N. E. A. had in its committees discussed the reorganization of the school system for two decades, no definite policy had been formulated or promulgated. Finally it gave considerable acceleration to the movement. In 1911 there was presented a report on the articulation of high school and college. This opened up such a large number of questions that a commission was appointed to work out a reorganization of secondary education. The commission's preliminary report made in 1913 concerned itself with the subjects then taught in the four-year high school and gave almost no indication of a consciousness of the so-called 6-3-3 movement that had already appeared in several cities. But the 1914 report indicated that the commission had practically become committed to the new plan, saying: "The traditional plan of devoting eight years to elementary education is rapidly becoming obsolete . . . Consequently it will be necessary for each committee [the commission was divided into committees] in preparing its report to indicate how



its recommendations may be adjusted so as to meet the needs of schools under both plans." In 1916 two committees of this commission reported. The one on English in the Secondary School advocated a six-year course in English beginning with the seventh grade. The committee on Social Studies recommended a six-year secondary school program adapted to both the 6-3-3 and the 8-4 plan.

Meanwhile the committee on Economy of Time, under the chairmanship of Superintendent H. B. Wilson, reported in 1913 on several plans for shortening the elementary curriculum. Professor Judd of the committee reported a plan which was being tried out in the University of Chicago training schools whereby the eight years of elementary work were being done in seven years and work of grades nine to fourteen, inclusive, in five years. In 1914 the committee reported that actual progress had been made in formulating plans for economy of time in the various elementary subjects. Significant also was the report of a similar committee of the National Council of the National Education Association which had been working on the problem since 1908. This report recommended the division of educational curricula as follows:

	AGES
Elementary Education.....	6 to 12
Secondary Education (2 divisions—4 yrs. and 2 yrs.).....	12 to 18
College.....	18 to 20
University (graduate and professional)....	20 to 24

In 1916, at a meeting of the Department of Superintendence in Detroit occurred two most interesting and far-reaching debates. The first was a debate on the question: *Resolved, That the best organization for American schools is a plan which shall divide these schools into six*



*years of elementary training and six years of secondary training.* The affirmative was upheld by Professor Charles H. Judd, Director of the School of Education, University of Chicago, and the negative by President Carroll G. Pearce, of the Milwaukee State Normal School. With all due regard to the abilities of the negative speaker, the fact that such a well-known educator as Dr. Judd should publicly advocate the junior high school so eloquently and convincingly was epoch making. Hundreds of city superintendents left the convention with the intention of establishing the new plan in their cities. The next day the delegates to this convention of three thousand superintendents were privileged to hear a joint discussion of "The Minimum Essentials *vs.* the Differentiated Course of Study in the Seventh and Eighth Grades," by Doctors Coffman, Bagley, and Snedden. These addresses at Detroit and the very strong paper by Professor Johnston at the New York City gathering in the following summer, beginning "The junior high school movement is sweeping the country," brought the subject into a position of the greatest prominence in the National Education Association.

**6. The Junior High School throughout the Country.** To trace the history of this movement from the time that the first real junior high school was established in Berkely in 1910 would be like an attempt to count the springing up of mushrooms on a spring morning after a rain. Notable among the cities that early committed themselves to the plan were Houston and Detroit. Two new and beautiful buildings were constructed in the former city to accommodate 1000 pupils each. In the fall of 1914 all the pupils of the three grades following the sixth were housed in these splendid homes. Detroit built five such junior high school buildings at a cost of over half a million

dollars. Salt Lake City organized three large schools of this type. Former Superintendent Brumbaugh recommended to his board that the Philadelphia school system be organized on the 6-6 basis with junior and senior high schools of three years each. The University of Michigan encouraged the establishment of junior high schools by offering to accept three entrance credits earned in seventh and eighth grades—that is, the first two years of junior high school. St. Paul likewise soon adopted the plan, and constructed a building to accommodate a large junior high school, with one of the largest athletic fields in Minnesota. In that city the seventh, eighth, and ninth grade pupils were called Juniors and the tenth, eleventh, and twelfth graders, Seniors. Lewiston, Idaho, maintained a well-matured junior high school with a splendid curriculum. It formed one of the two wings of a large central building that also housed the senior high school. There were different principals for the two schools, but the instructors taught in both schools.

By the summer of 1916 almost every state in the Union had one or more of these junior high schools. Reports showed them distributed among the several states as follows:

Indiana.....24	New Jersey..... 6	Iowa..... 3
Minnesota.....24	Ohio..... 5	Connecticut..... 2
North Dakota...20	Oklahoma..... 5	Kentucky..... 2
Pennsylvania....16	Tennessee..... 5	Maine..... 2
California.....15	Texas..... 5	Vermont..... 2
Kansas.....13	Colorado..... 4	Alabama..... 1
New York.....13	Missouri..... 4	Arizona..... 1
Illinois..... 9	Montana..... 4	Arkansas..... 1
Massachusetts... 8	South Dakota... 4	Florida..... 1
Michigan..... 8	Utah..... 4	Georgia..... 1
Oregon..... 7	Virginia..... 4	New Hampshire.. 1
Idaho..... 6	Wyoming..... 4	Rhode Island.... 1
Nebraska..... 6	Washington..... 3	

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## 38 STATES HAD 254 JUNIOR HIGH SCHOOLS

The available statistics at the end of 1917 showed that 365 school systems, including most of the largest cities, had organized junior high schools on the general plan described in this book. The states of Vermont and Oklahoma were reorganizing their entire school systems to include these new institutions in every city and town.

**7. Varying Plans in Operation.** The simplest plan was the Berkeley system of arranging the seventh, eighth, and ninth grades in the lower division, and tenth, eleventh and twelfth grades in the upper division, each grade consuming a year of time. This scheme contained all the points mentioned in Chapter One except the saving of a year of time. The Los Angeles plan attempted to do in three years the work of the seventh, eighth, ninth, and tenth grades, and consequently left only two years for the senior high school proper. Detroit and most Eastern cities followed the Berkeley plan. Houston completed the twelve grades in eleven years. Its secondary system might be described as follows: The seventh, ninth, and tenth grades in the intermediate school; the eleventh and twelfth in the senior high school. The eighth grade never existed.

In New York City in 1913 there were 61,262 pupils enrolled in the high school. During that year there had been 20,326 pupils who failed to complete their courses. Of these, over 12,000 were in the first year. The result of this loss of pupils brought about in that city some radical changes from the former plan.

The intermediate school was introduced, largely to reduce this loss of attendance. It also planned to save a year of time for the pupils. The sixth, seventh, eighth, and ninth grades were to be grouped into an intermediate school, and the work done in three years. This was to be

accomplished by certain modifications in the grammar school curriculum, promotion by studies, and other features that are common to the junior high school.

Practically this same plan existed in Richmond, Virginia, where, however, the nomenclature was different. In Richmond the name "intermediate school" applied to a school in which just the fifth grade was taught. After finishing this intermediate school the pupils passed into the junior high school, which covered the work of the sixth, seventh, eighth, and ninth grades. The work, however, of these four grades was done in three years. This junior high school had most of the characteristics that were described in Chapter One of this book as being essential to such an institution. It seems that in Richmond the purpose of the "intermediate school" was to prepare pupils better for the junior high school. The former, however, did not form any part of the latter. One of the earliest junior high schools established in that city was the Bainbridge School. For a while, at least, the fifth grade was taught under the same roof.

In Fitchburg, Massachusetts, there were maintained intermediate schools which were more or less independent of the high school. The curricula offered in them were, however, largely culminal, although the schools maintained literary courses that led directly to the senior high school.

The purpose of the Fitchburg intermediate school was to keep children in school and to afford an opportunity to give a semi-vocational education to over-age children. There were similar intermediate schools in Cleveland, Albany, and Rochester. Little attention was given to grading in any of these schools. The thing that counted for entrance was age. The intermediate schools did not form an essential link in the school curriculum, but aimed to deal with special cases, although academic work was given in connection with the industrial work.

Then there was the plan that made no break in the middle of the secondary curriculum but completed the six upper grades in six or even in five years.

Finally, there was the plan adopted in Pomona, California. This plan completed the seventh, eighth, ninth and tenth grades in three years, and then devoted four years to the eleventh, twelfth, thirteenth, and fourteenth grades. This normally carried the student to his nineteenth birthday, and gave him a strong taste of college life, vocational education that carried him well on toward maturity, and qualified him to begin university work where it should begin, with the junior certificate. Such a plan when adopted creates not simply one new institution but brings into life at one and the same time two new institutions, a junior high school and a "senior high school—junior college." In this way the high school is not merely robbed of its first or first and second years, but is abolished altogether, and in its place and in the place of the seventh and eighth grades and the junior college appear *two entirely new* institutions profiting by the successes and failures of the schools they displace.



## CHAPTER III

### RECENT HISTORICAL DEVELOPMENT

**1. Colleges Begin to Offer Courses on Junior High School Problems.** As early as the summer of 1918 the University of Southern California offered a course in the study of the junior high school. The catalog described that course as follows:

Education 133: Intermediate or Junior High Schools. Adolescent psychology; defects in the 8-4 plan; history of the junior high school movement; reorganization of the school curriculum; administration; methods of teaching; relation to elementary and senior high school; practical problems. Two units. (Bennett).

At about the same time the Bridgewater (Massachusetts) State Normal School began offering similar courses in its summer sessions and then in its work during the regular sessions. By 1925 seventy normal schools, teachers colleges, and university schools of education were offering courses. But only one course in each, with in no case more than three units of credit.

Summer school students everywhere took a lively interest and enrolled in large numbers. Several states began requiring the course as a requisite for a certificate to teach in junior high school. This greatly stimulated enrollment in such courses.

Paralleling the offering of general courses in the principles of the junior high school, has been in a few institutions a course in the psychology of adolescence. This is not intended, however, to apply so much to the junior high school pupil as to the secondary school pupil in general.



Up to the present the whole problem of training junior high school teachers has been considered a part of the program of training secondary school teachers or elementary school teachers. No outstanding program has appeared that stands out clearly as a whole curriculum, devoted exclusively and pointedly to preparation for junior high school teaching only. It would seem, however, as if that is the next step. At present a course in the principles of junior high school education forms a small part of the curriculum designed for secondary school teachers. In the near future we may look for a complete curriculum designed for junior high school teaching, and having in it a course in the principles of secondary education.

The following professional courses are required for a junior high school certificate in California:

1. Public Education in California. (2 or 3 units)
2. Principles of Junior High School Education. (2 or 3 units)
3. Education for Citizenship. (2 or 3 units)
4. Classroom Methods and Management. (2 or 3 units)
5. Practice Teaching (4); or Practice Teaching, and a Teachers' Method Course of not more than two semester hours (5).
6. Principles of Elementary Education (2 or 3). (Required if the teacher wishes his certificate to enable him to teach in elementary school as well as in junior high school.)

It would seem as if the Principles of Secondary Education and the Psychology of the Junior High School Pupil should be included in a curriculum for teachers.

**2. Books about the Junior High School.** While magazine articles expressing ideas and opinions about the 6-3-3 plan and the junior high school were appearing in considerable quantity, no book<sup>1</sup> devoted exclusively

<sup>1</sup> An excellent monograph by Aubrey Augustus Douglas on the Junior High School was published as a separate pamphlet, by the National Society for the study of Education earlier than this.

to the subject had been published by an educational publishing house prior to 1919 when the first edition of the present little volume came from the press of Warwick and York, Incorporated. Before it was ready for distribution nearly a thousand copies had been ordered, and the sales before the end of 1920 had reached 4000. The book was in demand chiefly as a basic text in summer session courses in colleges and normal schools; but it also served for reading circle courses in several states.

In 1920 appeared two books by eminent scholars. Professor Thomas H. Briggs of Teachers College, Columbia University, traveled throughout the country in 1918-19 making an extended study of the junior high school movement in states where it was reputed to be in operation. He embodied the results of his investigations in his book. It abounds in well organized and digested groups of facts concerning junior high school practices as they had been worked out at that time. Briggs' book rapidly found a place in college classes as a text-book for the study of this new movement. Doctor Leonard V. Koos, professor of secondary education in the University of Minnesota, made a very different attack upon the problem. His book aims to interpret the movement for reorganization in education and to give an explanation of the basic principles that underlie the junior high school as a functioning institution. While both volumes are soundly scientific, Briggs' seems to be the more serviceable as a compendium of facts concerning junior high school practices, and Koos' as a philosophical treatment of principles.

In 1922 Joseph K. Van Denburg, who had for some time been carrying on extensive experiments in the conduct of a junior high school in New York City, published his findings of fact, and his conclusions as affecting the actual practice in organizing the curriculum,

in teaching the pupils, and in administering the school. The book has been largely used as a basic text in college classes studying the junior high school problem, and will for years to come constitute a most satisfactory reference book in such a course. Another book resulting from an experiment carried on in a Philadelphia junior high school appeared in 1924. The authors, Mrs. Thomas-Tindal and Miss Myers, had organized their school to function in the guidance of pupils, educational, vocational, social, cultural, and physical guidance. Their book, *Junior High School Life*, describes the plan tried out and the results. As text-books for the study of the results of experimental procedure these two books have at present no competitors.

There has been some tendency for authors to bring out books on special phases of the junior high school problem. This found expression in Johnston, Newton and Pickell's *Junior-Senior High School Administration*, and in H. C. Hines' *Junior High School Curricula*. The first is devoted to administrative problems while the latter has described several type curriculums and has set forth clearly the objectives of junior high school as announced by boards of education in adopting the 6-3-3 plan. Other phases of the general problem for which those interested may probably expect specific monographs relate to teaching methods, the school plant, selection of text-books and materials of instruction, training of teachers, and measurement of product.

Another aspect of the junior high school problem is concerned with the nature of the pupil population,—physiological and psychological. Too many of our notions on these lines are limited to someone's individual experience or are taken bodily from G. Stanley Hall's writings on adolescence. The past few years have seen the publication of a volume, the findings of which are

based upon very recent scientific experiments and studies. Pechstein and McGregor's *Psychology of the Junior High School Pupil* gives a truer picture of the early adolescent than any that had been given before.

Davis' *Junior High School Education*, published in 1924, follows somewhat the plan of Briggs but is more replete with fuller descriptions of the actual workings of certain well-established schools, school curriculums, school methods, and school systems. There have appeared several books on the teaching of the various subjects in junior high school—all serving a useful purpose. It would seem as if the present need is for more reports from teachers and administrators actually engaged in working out the problems of everyday experience. This points the way to the foundation of an educational magazine dealing exclusively with classroom plans, methods, experiments, and practices useful to the teacher on the job.

**3. New School Text-books, Equipment, Buildings, and Materials.** For nearly a decade after the junior high school began, the teachers were compelled to use the text-books that had been in general use in the two last years of the elementary school and the first year of the high school. When, however, the number of junior high schools and of pupils attending them grew to large figures, educational publishers began to cater to the demand for specially prepared books. At first these text-books appeared to be precisely the same as those used before, but with new titles, such as "*Junior High School Mathematics*." By 1919 bona fide attempts had been made to change the content of the book to meet the character of the new institution.

The following are titles of text-books whose content is adapted to the junior high school pupils: *Community Civics*, *Elementary Economics*, *Occupations*, *Junior*

Geography, Elementary Social Science, Junior High School English, Junior High School Literature, Junior English Grammar, Introductory American History, Beginners' Ancient and Modern History, Beginners' French, First Latin Book for Junior High School, Junior High School Mathematics (Books, 1, 2, 3), Two-part Songs for Intermediate Grades, Junior Mechanics and Electricity, Practical Arts for Boys in Junior High School, Prevocational Arts, Junior General Science, Everyday Science, First Year Science.

The chief changes in the nature of text-books include: Change in the style and diction, concrete rather than abstract, project and problem rather than example, system of scientific facts rather than unrelated materials, social and vocational rather than purely individualistic-avocational, useful rather than informational, developmental more than factual, interesting to youth rather than to adults, psychological or pedagogical rather than logical in arrangement.

About the same time as new text-books were written, there began an attempt to construct buildings and plants that would be adapted to the peculiar needs (if any) of junior high school pupils and types of work. Up to that time junior high schools had been largely housed in abandoned high school buildings or centrally-located elementary school buildings. Even when new plants were constructed for the lower secondary school, they followed in form and arrangement the old-type or new-type high school. Little effort was made to strike out on original lines.

Since 1920, however, cities have tried to build their buildings around the junior high school pupils and curriculum. In these, shops and laboratories are more prominent than in elementary buildings but less prominent than in high school. A suitable unit or standard



capacity has been attempted. Rochester, Los Angeles, Oakland, and most southern cities regard that unit as about 1200 pupils. The larger and more congested cities tend to construct huge plants approximating the pupil capacity of the largest high schools—3000 to 4000. The small cities and large towns prefer a much smaller unit, say 300 to 600 pupils. There seems to be a well-thought-out scheme of housing junior and senior high schools together in the very small communities.<sup>1</sup> Even in such cases each of the two divisions often has a separate building to itself, or it may be merely a separate wing or floor of a single building. As the two divisions have quite distinct curriculums, they have different time-schedules and faculties.

Some of the unique features of junior high school buildings which are intended to make the institution more directly serviceable to the pupils that attend are listed here, as collected from a number of sources:

Rooms adapted to the socialized recitation method.

Rooms particularly adapted to and equipped for vocational exploration, such as, bookkeeping, typing, bench-work, machine-shop, mill and lathe shop, mechanical drawing, art, agriculture, cooking, sewing, etc.

Daltonized rooms for special study and work in English, history, science, foreign language, etc.

Rooms particularly arranged for vocational training: kitchens, housekeeping apartments, household-mechanics, printing, automobile repair, sheet-metal, cabinet-work, electricity and typewriting; and spaces for agriculture and related occupations.

Rooms constructed for laboratory study of general science, biology and mechanics.

<sup>1</sup> Cf. C. D. Kingsley's description of the school at Peabody, Massachusetts, as quoted in Davis' *Junior High School Education*, p. 385.



One large auditorium and several small auditoriums, the latter (at least) to be in use every period of the day in such activities as demonstrations, public discussions, plays, group singing, orchestra, rehearsals, parliamentary practice, club meetings.

Large boy-scout and girl-scout rooms, with offices for scout-masters. A library designed for practical and recreational purposes. Such accommodations might include a large reading room, a work-room, a teachers conference room, and several small conference rooms for pupil committees, debate teams, etc.

Separate gymnasiums, swimming pools, shower-rooms for boys and for girls.

Cafeteria kitchens and lunch rooms.

Rooms used in the day by pupils, but so arranged that they can be shut off from the rest of the building while used in after school periods by adults or children for community purposes.

Offices and work-rooms for teachers so arranged as to be separately heated.<sup>1</sup>

Typical of the schools built to embody a large number of these features may be mentioned the John Muir, Foshay and LeConte Junior High Schools of Los Angeles; the Madison and Monroe Junior High Schools of Rochester (each erected at a cost of approximately one and one-half million dollars); the Barbour School of Detroit; the West School of Jackson, Michigan; the Morey and the Myers Junior High Schools of Denver; and the Pattengill Junior High School of Lansing. The state superintendents of various states report especially up-to-date junior high schools in the following towns and cities: Richford, Highgate, Waitsville, Jeffersonville, and Cabot in Vermont; Albuquerque, New

<sup>1</sup> Cf. Davis, *Junior High School Education*; also the *Junior High School of Rochester, New York Bulletin*.

Mexico; Des Moines, Waterloo, and Cedar Rapids in Iowa; Huntington and many other places in West Virginia; Atlanta and Savannah, Georgia; Baton Rouge and Vermilion in Louisiana; Fairbault, Rochester, and Fergus Falls in Minnesota; Florence, South Carolina; Lexington and Paducah in Kentucky; Austin, San Antonio and Houston in Texas; New York City, Rochester, Syracuse, Schenectady and Jamestown in New York, with an excellent rural junior high school at Patchogue; Springfield, Newton, Watertown, Somerville and Waltham in Massachusetts; Baltimore, Maryland; Trenton, Nutley, and Montclair in New Jersey; South Bend, Indiana; and Smyrna and Dover in Delaware.

There are probably many other junior high school plants and buildings of outstanding merit and completeness. The above may be considered as typically so.

The equipment and materials of instruction for junior high schools have not kept pace with adaptations in buildings and in text-books. An examination of a recent catalog of a large school supplies company reveals the following facts:

1. Schools are still classified for equipment purposes into:  
Normal School  
High School  
Grammar  
First Intermediate (fifth and sixth grades?)  
Second Intermediate (third and fourth grades?)  
Primary (first and second grades?)  
Kindergarten
2. Desks, supplies, and materials of instruction evidently intended for the grammar grades assume that the common-school branches still reign supreme in seventh and eighth grades with little or no recognition of the new courses in ninth grade.
3. Mensuration seems to be recognized as a distinct course requiring a new type of equipment.

4. Some recognition of mechanical drawing, household sciences and arts, and general science as grammar grade subjects is detected.
5. School record forms and report cards conform to the traditional divisions of the 8-4 type of organization.

It must not be inferred, however, that the school supplies houses do not carry a vast quantity of furniture, equipment and materials of instruction which could be adapted to junior high school use by ingenious teachers. Nor should these houses be blamed if teachers do not invent and design such accessories as will specifically further the purposes of the school's evolutionary program. It is probable that the supplies companies are making efforts to get the necessary suggestions from teachers.

It would seem as if every junior high school should be equipped with the following:

Athletic and recreational equipment for use in games and plays for large children but simple (rather than collegiate) in nature.

Shop equipment designed for exploratory rather than vocational purposes.

Laboratory equipment of less than high school intricacy, for the study of general science, biology, electricity, mechanics, etc.

Daltonized history, geography, mathematics, and occupation materials and equipment.

Vocational and educational guidance record cards.

Desks, seats, tables, racks, charts, stands, etc., adapted to socialized study and recitation.

It is certain that a principal setting out to equip his new junior high school would find it next to impossible to secure ready-made a large part of the above accessories of teaching.

**4. Development of Junior High Schools in Cities.** The junior high school movement has progressed much faster in the large cities than in the smaller cities and rural areas.

When Mr. Francis resigned from the superintendency of Los Angeles in 1916, the city had eight three-year junior high schools with an enrollment of 6500 pupils and four six-year junior-senior high schools with an enrollment of 1000 in the seventh, eighth and ninth grades. Every high school in the city had overflowing ninth grades. The Custer School had been in existence since 1910; Berendo, Fourteenth Street, and Thirtieth Street, since 1911; McKinley, Sentous and Virgil, since 1912; Boyle Heights since 1913. Since 1916 several larger, better equipped junior high schools have been built, such as the Hollenbeck, John Adams, John Burroughs, John Muir, Lafayette, LeConte, and Foshay. Each of these is intended to accomodate from 1200 to 1800 pupils. In February, 1925, over 16,000 pupils were enrolled in the regular junior high schools of the city.<sup>1</sup>

Detroit has been running a close second to Los Angeles in the number, size, and efficiency of its junior high schools. By 1916 four plants had been created. The Condon and Joyce schools represent the architectural plans of the early period of the movement. The Hutchins and Barbour schools embody the most recent improvements in curriculum, architecture, and organization. The gymnasiums, auditorium, library, boys' shops, and domestic science departments of the Hutchins School leave nothing to be desired in educational effectiveness.<sup>2</sup>

Houston was a pioneer in the junior school movement. By 1918 two fine buildings had been constructed, each to

<sup>1</sup> Superintendent's Report No. 25, March 12, 1925. Most of the data in this section is from answers to questionnaires sent to state departments of education.

<sup>2</sup> Davis, Junior High School Education gives good pictures of these departments in the Hutchins and floor-plans of the Barbour School.

house from 1200 to 1800 pupils. Improvements and adaptations have kept pace with progress in educational theory and experiment. San Antonio, under the superintendency of Jeremiah Rhoades, inaugurated the plan, voted bonds for construction running to two-million-dollars, and followed the lead of Houston. San Antonio is doing extensive health work, and especially club work using the library in place of text books. Denver fell into line in 1920 and Kansas City about the same time. Salt Lake City had a national reputation as an efficient educational system before the junior high school movement began to sweep the country. It was somewhat of a triumph when this city adopted the 6-3-3 plan of organization and created the Roosevelt and Bryant junior high schools.

No doubt Rochester, New York, possesses the distinction of being one of the most progressive of junior high school centers. The growth and development of the institution in this city are matters of interest. Quotations are made from the manual on the junior high school published by the Rochester Board of Education in 1923:

Practically from the beginning of the junior high school movement in Rochester all policies have been discussed, formulated and recommended to the Board of Education by a Junior High School Council. This council consists of the principals of the junior high schools and various other directing heads, both in the junior high schools and at the central office.

The first junior high school in Rochester was opened in September, 1915. Primarily because of inability to forecast just what building facilities the development of this junior high school type of organization may require, it was decided to build an addition for shop work to one of the existing centrally located grammar schools, and to establish here the first junior high school. This grammar school was the largest in the city. (This became the Washington Junior High School.)



The Jefferson Junior High School was opened as a junior high school in September, 1920. It had been used during the preceding year to relieve congestion in the surrounding schools, but . . . was simply a departmentalized school for 7th and 8th grade pupils. The cost of the Jefferson Junior High School was \$736,994.

The first completely equipped building to be erected for junior high school purposes was the Madison Junior High School on Bronson Avenue, facing Watson Park. The contract for this building was awarded at a contract price of \$1,497,120. Its working capacity is for approximately two thousand pupils. It was opened in September, 1922.

The contract for the Monroe Junior High School building was awarded in 1921 at a contract price of \$1,390,555. The plans used were essentially the same as those for the Madison School, and the capacity is the same. The school was opened in September, 1923, with a registration of approximately twelve hundred pupils.

In March, 1925, Oakland, California, reports sixteen junior high schools enrolling approximately 7670 pupils. New York City reports 22 junior high schools in the borough of Manhattan, 12 in Brooklyn, 9 in the Bronx, and one in Richmond. There are twelve junior high schools in the city of Baltimore, one of the latest being the Clifton Park Junior High School. Philadelphia has seven fully developed junior high schools, one of which (the Oliver W. Holmes) has done very important work in educational, vocational, social, civic, physical, and cultural guidance. Washington, D.C., has six schools of this type for white pupils and two for colored pupils. Pittsburgh has four schools of the 7-8-9th grade type, and one of the 7- to 12th grade type. The Latimer Junior High School is perhaps the best known.

**5. Developments in the States.** First place here must be accorded Vermont, which as early as 1912 began to work out in practice a plan of rural junior high schools composed of the 7th, 8th and 9th grades and most frequently also including the 10th grade. Such schools



were authorized by legislation in 1915. By 1916 twenty-eight junior high schools had been organized in the state. The qualifications for teacher's certificates were placed as high as those for high school certificates. Today typical schools exist at Richford, Highgate, Waitesfield, Jeffersonville, and Cabot. Many of these junior high schools have but three teachers. Practically all offer courses in shop work, household sciences and arts, and agriculture. These schools are not young high schools, but are often established in communities too small to provide sufficient pupils and revenues to justify a senior high school. The state department has issued two valuable pamphlets describing the work,—Bulletin #1 of 1918 and Bulletin #8 of 1924.

Probably Colorado must be placed next in the development of small junior high schools over the state. The state office reports that there are 116 fully organized schools of this type. Two of the earliest ones to move into fine new buildings were the ones at Rocky Ford and Fowler, the former having accomodation for approximately 600 pupils, the latter for 200. Kansas, also, takes an advanced position with 41 junior high schools of the seventh, eighth, and ninth grade type. The Sherman Junior High School in its new building in Hutchinson employs 22 teachers and enrolls 627 pupils. There are four schools with enrollments of 30, 45, 114 and 150 respectively; seven from 200 to 299; six 300 to 399; four, 400 to 499; five 500 to 599; seven, 600 to 699; one, 804; one, 840; one, 883; and the five in Kansas City (Kansas) with an aggregate of 2950 pupils. It would seem as if the standard junior high school of Kansas calls for a capacity of less than 900 pupils, with a median for all schools at about 500. The James Allison Junior High School in Topeka, the Horace Mann in Wichita, the Iola, Manhattan, and El Dorado junior

high schools in towns of the same names are close to this median size.

Mississippi reports eight junior high schools in existence; New Mexico, 10; West Virginia, 82; Louisiana, 10; Kentucky, 6; Texas, 30; New York, over 100; Massachusetts, 140; New Jersey, 15; Indiana, 150; Nebraska, 6; South Dakota, 6; Florida, 6; Maine, 25; Delaware, 5. Reports received from other states were indefinite. The biennial report of the Superintendent of Public Instruction of California, dated September, 1924, shows that there are now 59 junior high schools in that state, of which 15 were established before 1915, seven between that date and 1920, while 37 were established between 1920 and 1924. Pennsylvania has 109 separate junior high schools, of which fully a dozen embrace the tenth grade as well as the seventh, eighth, and ninth.

One of the important events in the recent history of this movement for reorganization of secondary education was the calling of James M. Glass from his principalship in Rochester, New York, to the Directorship of Junior High Schools for the State of Pennsylvania. By inspiring visits and reports, Mr. Glass has greatly stimulated the organization of new junior high schools, has helped to establish proper objectives and standards, and has assisted everywhere with local problems. In small communities he has favored the 6-6 plan, a recent report indicating that there are fully a score of districts organized this way. Not the smallest part of his value to Pennsylvania is the scientific and experimental attitude with which he has attacked the problem. The very fact that a great state like Pennsylvania creates a state division devoted to junior high school supervision gives a strong impetus to the movement.

**6. Clarifying Objectives, Testing Methods and Plans and Progressing by Experimentation.** In 1918 the report

of the Commission on the Reorganization of Secondary Education setting forth the cardinal principles of secondary education was published as a bulletin of the United States Bureau of Education. This attempt at defining the aims and objectives of education has had a large influence in determining the character of the newer curriculums for both senior high school and junior high school. Coming as the pronouncement of an influential committee of the National Education Association after years of study, conferences, and public discussion, it soon found expression in state and district action.

In brief the commission decided that the aims and purposes of education, especially secondary, may be included in seven categories: (1) Health; (2) Command of the fundamental processes; (3) Worthy home-membership; (4) Vocational efficiency; (5) Citizenship; (6) Worthy use of leisure; (7) Ethical character. Put into practice in the curriculum of a junior high school, such purposes would require courses in physical education, hygiene, and sanitation; further study of English expression, arithmetic, spelling and penmanship, and interpretation of the printed page; home arts and sciences for girls and home chores for boys; vocational economics, prevocational exploration of the industries, and the beginnings of clerical, agricultural, home-making, or mechanical vocational education; history, geography, civics; English literature, foreign language, music, science, fine arts, and applied arts; manners, morals, and ideals.<sup>1</sup>

Of scarcely less importance was the publication the same year of Inglis' *Principles of Secondary Education*. Alexander Inglis was a member of the Commission on the Reorganization of Secondary Education. In his

<sup>1</sup> U. S. Bureau of Education, Bulletin, 1918, No. 35, *Cardinal Principles of Secondary Education*.

book which has been very widely used as a text in university courses in secondary education, he set forth the aims of secondary education as three: (1) the Social-Civic Aim; (2) the Economic-Vocational Aim; and (3) the Individualistic-Avocational Aim. He would probably have included in his first aim, the third, fifth and seventh objectives as given by the commission; in his second aim, the fourth and part of the third objective; in his third aim, the first and sixth objectives. The functions of secondary schools in carrying out these aims, Inglis states as follows:

- |                           |                             |
|---------------------------|-----------------------------|
| 1. Adjustive, or adaptive | 2. Integrating              |
| 3. Differentiating        | 4. Propaedeutic             |
| 5. Selective              | 6. Diagnostic or directive. |

Few books in modern times have so clearly stated the fundamental principles underlying our educational structure. It is easy to trace the origin of several typical junior high school curriculums to Inglis' logical statement of aims and functions.

In 1920 the North Central Association began to give consideration to setting up tentative standards for junior high school curriculums, teaching staffs, and buildings. The curriculum recommendations were for mathematics, social sciences, languages, natural sciences, the fine arts, physical training, agriculture, manual training, household economics, commercial subjects, and exploratory courses. The standard for teachers was four-year college preparation with eleven units in education. The building standards pertained particularly to health conditions.

By 1923 the association had gone on record as favoring some type of the junior high school plan. There should be building facilities for instruction in practical arts, health education, recreation, laboratory subjects, assembly programs, supervised study and social activities.

The curriculum mentioned in the preceding paragraph was more specifically stated to include geography and elementary science, vocational information, and practical arts for both boys and girls. Electives prior to the second semester of the eighth grade were considered ill-advised, but exploration and review of subject-matter should be provided in the content of courses and by the arrangement of the curriculum.

Several states, notably Pennsylvania and California, have made similar announcements of standards. Arkansas<sup>1</sup> recommends the following content to curricular courses:

*English:* Reading, Literature, Grammar, Composition, Spelling, Dictionary Study.

*Social Sciences:* American History with European Background, U. S. History, Community and Industrial Civics, Geography, Economics.

*General Mathematics:* Composite of Arithmetic, Algebra, Geometry, Trigonometry.

*General Science:* Hygiene, Sanitation, Nature Study, Elementary Botany, Zoology, Physics, Chemistry, Physical Geography, Mining, Agriculture.

*Practical Arts:* Woodwork, Mechanical Drawing, Electric Wiring, Plumbing, Auto Mechanics, and Printing (for boys), Home-making, including Foods, Clothing, Nursing, and Interior Decoration (for girls).

*Fine Arts:* Music: Singing, Appreciation, Orchestra, Choral Clubs, Glee Clubs, Band. Art: Drawing, Sketching, Cartooning, Lettering, Decorating, Painting, Basketry, Appreciation.

*Foreign Languages:* Latin, to enrich the English course and to prepare for entrance to certain colleges; French, or Spanish.

*Commercial Subjects:* Commercial Arithmetic, Bookkeeping, Typewriting and Shorthand, Industrial Geography, Spelling, and Penmanship.

*Health:* Hygiene, Sanitation, Formal Gymnastics, Physical Examination and Corrective Exercises, Organized Athletics.

<sup>1</sup> Course of Study for Junior High Schools, Arkansas State Board of Education, Little Rock, 1924.



And for extra-curricular activities: Home Group Activities, Assemblies, School Paper, School Annual, Student Handbook, Literary Societies, Orchestra, Band, School Bank, Student Council, Debating Club, Scouts, Camp-Fire Girls, Girls' Reserves, Athletics, and other similar activities.

Mr. A. C. Olney, Commissioner of Secondary Schools of California, states in his circular of October 10, 1925:

Junior high schools are a part of the secondary school system. Approximately forty per cent to fifty per cent of the pupils of grades seven, eight and nine in California are now enrolled in junior high schools.

Some principles which should guide in setting up junior high schools courses, in my opinion, based on theory and experience are:

(a) A content in each subject interesting and valuable to adolescence, contributing to one at least of the objectives of secondary education—this content by experiment to be determined by youths and not by adults alone.

(b) Some choice of subject, beginning with the 7th and 8th grades.

(c) A period long enough in which to receive direction and practice in how to study.

(d) A discarding of the plan of teaching solution of problems by arithmetic, usually the most difficult method, and a substitution of the easiest method of solution even if algebra, geometry or trigonometry have to be invoked.

(e) Checking and proving of results wherever feasible.

(f) Capitalizing the short periods of shifting enthusiasms characteristic of adolescence by establishing short units of work.

(g) An introduction of new and interesting subjects which will supply knowledge or skill which can be used immediately and upon the completion of the school course.

The changing objectives of education, through the grades of elementary and secondary schools may be illustrated by the following chart, which represents the pooled *opinions* of a class in junior high school education:



	Grades 1-3, per cent	Grades 4-6, per cent	Grades 7, 8, I, per cent	Grades II-IV, per cent	College per cent
Mastery of Fundamental Processes.....	50	50	10	5	0
Physical Development Education.....	25	20	30	25	10
Social-civic Education.....	15	20	25	25	25
Education for Use of Leisure Time.....	8	8	15	15	15
Vocational Education and Guidance.....	2	2	20	30	50

While this statement of opinions of the relative importance of objectives of schooling in the various grades cannot be regarded as especially significant, it does indicate an important fact: For any given pupil or for a given homogeneous group of pupils the various objectives of schooling change about in their relative importance from grade to grade. It is probably true that for pupils of approximately average ability the fundamental processes can be mastered in the six elementary school grades, requiring very little attention thereafter, providing (of course) that as much as fifty per cent of school time and attention has been devoted to the mastery of those processes in the elementary school. Other notable changes in the junior high school are the increase of the importance of physical education due to the onset of adolescence, some greater significance of training for good use of leisure time, and the rise of the need and opportunity for vocational exploration.

## CHAPTER IV

### EFFECTS UPON ELEMENTARY AND SENIOR HIGH SCHOOLS

**1. Preliminary Discussion.** An extract from the first edition of this present work will serve to illustrate the attitude of public school administrators ten years ago toward changes to be wrought by reorganization of education:

"If secondary school work is to be begun in the first year of the junior high school, the foundational courses must be completed in the grades preceding it. Of course, this does not mean that the work of eight grades must be compressed into six years. Unfortunately it has been represented to the public that the new system is to bear down heavily upon the children, overcrowding them with study and overtaxing their tender strength. It has been pictured that babes and innocent children who should be spending their time in joyful play will be rendered nervous and prematurely serious by pitiless taskmasters, trying to do the work of eight grades in six years.

"As a matter of fact it never should have required eight years to complete the eight grades of the common schools. The old courses of study, the old branches of study, and in cases the text-books have been padded and repeated so as to keep the children busy for eight years, when they could have done, without strain, all the really foundational work in six years.

"The pre-secondary education of our public schools provides the pupils with the tools by which cultural and

vocational education are to be worked out later. The pupil learns to read silently and with rapidity the books on scientific, literary, and historical subjects that will contain the messages and suggestions of secondary education. He is to be able to work things out for himself with the aid of a dictionary only. He is capable of obtaining a secondary education if left alone on an island with merely the books relevant to the subjects, a library, including dictionaries and encyclopedias. He is not only to be able to read with ease and facility, but also to write so that others can read the record of his thoughts and so that he himself at a later time can also decipher his writings. This writing will include not only the formation of his letters and other characters, but the spelling of words correctly, the composition of sentences and their punctuation—so that no misunderstanding can arise as to what his writings actually mean. Besides being able to express his thoughts on paper, he is taught to express them clearly in oral speech.

“Foundational education also includes facility and accuracy in computations that involve the fundamental operations of arithmetic—addition, subtraction, multiplication, and division—and that involve fractional as well as whole numbers. The pupil masters decimals and possibly percentage in the elementary grades. There are certain other foundational ideas and concepts that are acquired—such as the place ideas of geography, the fundamental concept of the universe, the historical concept that we are living at the end of a past that stretches back hundreds and thousands of years, the political concept that we are a part of a state governed by regularly constituted authorities, the nature sense that we are related to all creatures in the world of nature, the feeling of physical health and the knowledge of the laws that govern it, and the vocational idea. These are

all fundamental. The body and the mind are trained through physical education and manual training.

“That this foundation can be laid in six school years has been demonstrated. The physical and mental growth through the progress of advancing age is more fundamental than even the acquisition of knowledge. The amount of knowledge to be acquired in the elementary school must be limited to what the child can accomplish in the six or seven years laid down by nature as the time to mature the six-year-old into an adolescent. Practically all children slightly below average at the beginning of school age should make their grades in the process of these six years of schooling and should enter the junior high school with their first grade classmates. Those above normal or above the average could acquire the knowledge required and the necessary development in six years, even though several of the conditions described in this chapter were lacking.

“The first condition is a year, more or less, of kindergarten training as a foundation for the work of the primary. This year of work should constitute Step One of a regular series of seven steps leading to the junior high school. Steps Two to Seven, inclusive, would then include the six years of grade school work in which the tools should be acquired—tools that will serve to build the superstructure of secondary education as carried on in the schools, or will, in a pinch, so to speak, serve to build a vocational education and a cultural education, while the pupil is earning a livelihood, if the builder has the strength of character necessary.

“The second condition is regular school attendance. A large percentage of retardation is brought about by failure to attend school regularly. A day’s absence can not easily be made up; a week’s absence may so break the continuity of the mental development that the indi-

vidual will feel the gap through life. The wound may heal, but the scar will be painfully apparent. A month's absence is in many cases fatal: the pupil would do well to repeat the whole semester's work rather than try to struggle through with the handicap. This injury is just as great whether the absence comes all in one large block or is scattered along through the semester a day or a half day at a time. Nor does this interruption in consecutive mental development take account of the injury to the habits of work sustained by the pupil. If anything, this weakening of the habit of continuous application is more injurious to the pupil than is the damage to the continuity of his mental development.

"Aside from the loss to the individual, one must consider the loss to society and to the State. Nearly every state in the Union has a compulsory-attendance law, and it may be assumed that the State and society regard a common school education as vital to their interests, else they would not be so insistent on enacting laws rendering it compulsory and in some cases actually writing it into the constitution. The State, it is said, regards an educated electorate as necessary to the perpetuity of democratic government. Many of the evils that have befallen popular government are traceable to the lack of a common school education on the part of the voters. We may assume, then, that society through the organization of the state is in earnest when it enacts laws compelling parents to send their children to the public schools until those children secure an education.

"Regular attendance on the part of every pupil every day that school is in session is essential to the welfare of the individual and of society. Self-interest of the individual demands it; society, with all the authority of organized government, requires it by drastic laws and the exercise of its irresistible police power."



**2. Effect of the Junior High School Movement upon the Elementary Grades.** While very few communities have gone so far in the reorganization of their school systems as to discontinue teaching the fundamental-process subjects in the seventh and eighth grades, everywhere there is the feeling that the elementary school must soon shoulder the burdern of responsibility of completing these subjects. More and more the junior high schools are introducing into the seventh and eighth grades revised high school subjects or entirely new subjects of study.

This burden of responsibility is compelling the elementary school officers and teachers to adopt many reforms, among which may be mentioned the following:

(a) Kindergarten made more directly preparatory for first grade, and primary grades made to utilize what the child has accomplished in kindergarten.

(b) School attendance better enforced.

(c) Longer school sessions established: ten and one-half months in at least one state, and agitation for an all-year school session.

(d) Better prepared teachers: teacher-training curriculums have advanced from two years in length to three years in many states.

(e) Adoption of such new devices as supervised study, the Dalton plan, etc.

(f) Elimination of non-essentials from the curriculum and from the various courses.

It may be possible for the elementary school to complete the so-called common school branches in six years if even the first five of these measures are adopted. But much significance has been attached to the sixth measure, upon which considerable discussion has centered. It will not be out of place to describe here what is being done, for the movement promises to relieve the junior high school of the common-school subjects at a very early date. There is a fairly complete agreement in theory upon the



following points and the practice is beginning to square with the theory in innumerable cities and districts.

**READING.** Intensive practice in reading aloud discontinued before the end of the sixth grade. Difficulty of reading-text for sixth grade pupils approximately that of current general literature of newspapers, and of magazines and books intended for wide general consumption. A pupil completing sixth grade reading will, therefore, be in such command of this fundamental process as to be able to read at sight and with ease the great mass of non-technical literature.

**SPELLING.** Frequently discontinued after the fourth grade; almost never appearing in the curriculum after the sixth grade. Only the exceptionally poor speller (one who misspells on an average 5 per cent or more of common words) needs further drill in a formal way.

**WRITING.** Fundamentals mastered in second or third grade. Ease, rapidity and legibility attained before the close of the sixth year of school.

**ARITHMETIC.** Addition, subtraction, multiplication and division of whole and fractional numbers—written and mental—learned as processes by the end of the fifth grade. Decimals and percentages mastered in sixth grade. Application of all these processes to practical everyday problems carried on all through these grades.

**GRAMMAR.** Taken up in sixth grade. Often continued into seventh grade. Sometimes renewed as a formal study in the ninth grade. Educators quite generally agree that all the grammar one needs to know for practical purposes may be mastered in the sixth grade.

**GEOGRAPHY.** Educators agree that with considerable elimination of non-essentials, geography can be mastered adequately for general purposes by the close of the sixth grade. In practice, however, it still appears in the seventh grade in many curriculums.

**HISTORY.** Through history stories a fair knowledge of the history of the world is gotten by the pupil before the sixth grade; this includes our own country. In the sixth grade a more intensive study of the European backgrounds of American history is presented. All later courses in history are merely specialized study of periods of history. The fundamental ideas of history are taught before or during the sixth grade.

**HYGIENE.** The pupil gets a fundamental knowledge of the parts and organs of the body, the rules of health and the elements of sanitation before he reaches the seventh grade.

**NATURE.** Through nature study and school gardening the foundations of biological, physical and chemical sciences are apprehended in the first six grades.

**VOCATIONAL INFORMATION, NEW CULTURAL STUDIES, TRAINING IN SOCIAL-CIVIC ACTIVITIES, AND THE PHYSIOLOGY OF ADOLESCENCE**—most of these things will be entirely new to the pupil who begins the junior high school curriculum. But the fundamental processes of reading, writing, spelling, arithmetic, geography, history, hygiene, nature, and possibly grammar, have been mastered to the extent that the pupil will need them in the affairs of everyday life. True, they will be better mastered in connection with the practice that will come in secondary education and in life's activities, but they need not again appear as subjects in the pupil's curriculum.

**3. The Senior High School, the Tenth Grade, and the Junior College.** Historically it is a fact that a lower institution tends to reach up and seize upon the matters that have been originated by a higher. College athletics, nomenclature, mannerisms, student self-government, methods of teaching, courses of study have been seized upon by high schools and adopted. Colleges have copied

the universities, have tried, in fact to become universities, and in many cases have succeeded.<sup>1</sup> The universities have striven to become graduate institutions and have succeeded. The intermediate school movement was given impetus by the ambition of seventh and eighth grade teachers to reach up and do high school work. Everyone knows of several junior high schools that were originally organized as seventh and eighth grade schools, or sixth, seventh and eighth grade institutions. They soon began to do high school work and in a remarkably short time had annexed the ninth grade.

With this strong tendency, it is possible that the junior high school will gradually seize upon the tenth grade. It has already done so in many communities.<sup>2</sup> This has happened even where no attempt was made to do four grades in three years. It has been gradual, almost unnoticed. Where four of the sixteen college entrance credits were required for entrance to the senior high school, there are many boys and girls who find at the end of the ninth year that they have actually earned five. Others complete the year with only three credits or even fewer and then stay another year. Such pupils—and they are numerous—enter senior high school practically as eleventh grade students. For a long time the tenth year work is offered in both the higher and the lower institutions, but this duplication is uneconomical. The question with the administration becomes, which school shall do the tenth grade? The lower salaries, the smaller laboratory equipment, the ambition of the lower school, the pre-occupation of the higher school with a reaching

<sup>1</sup> Typical of this climbing process is the case of the Girls' Industrial School which in a quarter-century grew into the Alabama Technical Institute and College for Women. Cf. Leonard, *Coordination of State Institutions*, University of California, 1923.

<sup>2</sup> Pennsylvania has notable examples.

up to do college work—all combine to give the victory to the junior high school.

Paralleling this evolution is the junior college movement, which in several states of the union has made even more rapid progress than the junior high school. Its greater swiftness is undoubtedly due to the fact that the high school was already a well organized institution with great power and prestige, whereas the intermediate school had to become established before it could begin to reach upward. High school teachers and administrators are well organized, well paid, high spirited and aggressive. It would manifestly be impossible to keep them down, even were it desirable. Their ambition to do college work once aroused, they move forward with characteristic impetuosity toward an inevitable goal. That goal is the annexation, to every good-sized high school, of the two first years of college, commonly called the junior college.<sup>1</sup> This movement is gaining in force. In California alone there are now more than twenty high schools with full-fledged junior colleges. A law passed by the California Legislature in 1917 encourages the establishment of a junior college in every county, and in connection with every city high school.

Whither does this movement tend? If the high school had continued to be a four-year school, it is likely that the junior college would have held aloof as a post-graduate but separate institution. In time, such a junior college would, by the process described above, have reached up and secured the third and possibly fourth years of college. This has actually happened in a few cities where junior colleges have grown into four-year city colleges or universities.

<sup>1</sup> Professor Koos made a study of chemistry and economics, as taught in high school and in college freshman classes. He found very little difference in content or method.

But the high school has not continued to be a four-year institution. The junior high school movement has taken from it one year and may in a short time take away a second year. This will reduce the old high school to a two-year curriculum—the eleventh and twelfth grades. Thus shorn of its lower two years, it may reach up and take over the two first years of college.

It may safely be assumed that the collegiate school is not to be simply a college, that is, it will not be just what a conventional college now is. It will become more and more collegiate, but the presence of younger students will prevent its becoming what we now know as a college. It is a college to train the minds, bodies and souls of all the people. Hence, we shall expect to find in its student body people representing all varieties of intellectual characteristics. Such catholicity of purpose, such broadness of scope must make a strong appeal to the youth of America. Trained in such an institution the people of our country will tend to become more and more democratic.

In the second place, the junior college will probably be a finishing school more largely than a university preparatory school. It may be assumed that most students will enter it at fifteen or sixteen years of age and will finish the regular four-year course by the age of nineteen or twenty. This is a good age at which to begin a professional course at university; but it is also an age of sufficient maturity to justify beginning a career. Entering an occupation at the age of twenty, a man should be self-sustaining from the first and within three or four years should be capable of supporting a family. A girl finishing school thus early may enjoy a period of four or five years in a self-supporting occupation and still marry early. On the other hand, completing her school education at twenty, she finds herself sufficiently mature



in purpose to marry with judgment. It may, therefore, be assumed that the courses in the junior college will complete the student's school education and prepare him to enter directly into the adult world.

In the third place, the collegiate school tends to be partially vocational. The argument that a person should not enter an occupation at an early age does not have much weight in this case. In the eight-grade secondary course it is possible to give him broad culture and social and civic education as well. But as he advances in this curriculum the vocational element becomes more and more predominant until in the last year it practically approximates the conditions of the adult world where the vocation occupies three-fourths of the day. An illustration<sup>1</sup> will indicate this trend:

11TH YEAR	12TH YEAR	13TH YEAR	14TH YEAR
1. Agriculture	Horticulture	Agronomy	Live Stock
2. Chemistry	Farm Mechanics	Irrigation	Soil Analysis
3. U. S. History	Economics	Farm Bkpg.	Farm Management
4. English Literature	Dramatics	Art	Farm-Home-Planning

In this program agriculture is the occupation aimed at. In the first year the student takes one directly vocational study, one science-vocational study, one civic study, and one culture study. In the second year two courses are directly vocational, one course is civic-vocational, and one is cultural. In the third year, three courses are directly vocational, and one course is cultural. Finally, in the fourth year, all four courses are directly vocational, although one of the four is cultural-vocational. In such a program we find the occupation booking larger and larger, the science, civic, and cultural subjects contributing indirectly, then directly to the main current. This resembles the adult world where the vocation occupies so

<sup>1</sup> Curriculum of the senior high school and junior college of Pomona, California, 1916.



much of one's time with physical pleasures, cultural enjoyment, scientific method, and civic activities contributing to it and dependent upon it.

**4. Effect of the Reorganization of Secondary Education upon the Junior High School Curriculum.** Let us first ascertain what proportion of boys and girls will take in senior high school the occupational courses and what proportion will prepare for university or other professional school. Of the boys finishing high school throughout the country only 47 per cent go to college or university and fewer than 6 per cent take professional courses. Of the girls in high school 92 per cent eventually marry and enter the vocation of keeping house. About 51 per cent go to university, normal or other professional institution. But those who graduate from high school form only one half of those who finish the ninth grade. It may therefore be assumed that about 24 per cent of boys and 26 per cent of girls entering the tenth grade will go to university, college or normal school. The college preparatory feature of the senior high school should therefore be of far less importance than the culminal features.

This puts it squarely up to the junior high school to give to 75 per cent of both boys and girls most of the physical, scientific, civic, and cultural education that they are ever to get in school. From the specimen program given in section 3, it is seen that one year each of chemistry, United States history, literature, art, dramatics and economics is all of the non-vocational work that may be gotten below university while two other courses are general enough to be accepted for entrance to university—that is, two years of full work. In the past educators have pointed out that four years of physical, scientific, civic, and cultural education are none too many for the good of the American people. One must conclude that two years of this kind of education must

be obtained in the junior high school. This would leave only one junior high school year as the maximum for vocational work. If thirty courses are offered in junior high school, twenty should be of the type described above, and ten may be vocational (or prevocational).

For the boy whose economic circumstances or whose advanced age does not force the vocational work upon him in the junior high school, this diet of non-occupational courses will be highly suitable. It is desirable that the boy shall not have to take in junior high school any more vocational or prevocational work than will be sufficient to help him and others determine what occupation field he would do best to enter. He would then have time to develop those other interests that are so essential to a well-rounded American. Among these are physical development which includes health, knowledge of nature's laws, manual dexterity, motor control, and muscularity; civic or social education, which embraces world history, American history, civic duties and responsibilities, and community well-being; a good command of the English language which is an essential of community well-being; the scientific spirit and method acquired by means of the sciences; and culture or the ability to enjoy the refining things of life, such as English literature, art, music, and in a measure history, science, manual training.

There is, however, to be cared for the boy or girl who intends to enter a profession. This means that he is to take a university course after he has finished the junior college and in the training of these young people one must be guided by what the universities lay down as the necessary basis for a professional education. It of course differs for various professions and for various universities. For the profession of law, historical, legal, logical, linguistic studies are recommended by the university authorities. The secondary schools must therefore provide two years

of Latin, two of pure mathematics, one of advanced civics, one of logic, two of English composition, and varying amounts of political science, economics, advanced history, foreign languages, debate, public speaking, science—in short, so much that eight years are not too long for accomplishing it all. The inevitable result is that it throws back upon the junior high school the giving of Latin, mathematics, sciences, and much history. If the pupil takes physical education, scientific training and a few cultural courses, he will probably have to work overtime. The same may be said of requirements for other professional courses.

Thus we find crowded into the junior high school much of what formerly was done in high school, at least the first two years of high school. This consisted of physical development, scientific education, civic education, culture, and university-preparatory-courses.

**5. Effect of the Reorganization upon Junior High School Administration.** Just a word should be said of the relations existing between senior and junior high schools in a city where there exists a senior high school. The problems are not essentially different in a city large enough to have five senior high schools from those in a city having but one. The questions arise out of conditions where one board of education governs both the higher secondary school and the lower ones. Such a city will have a superintendent whose sympathies and interests will lead him to promote harmony between the two grades of schools. He will see to it that the higher school does not dictate to the lower schools, and that the lower do not train the children away from the higher. It will be his desire to secure perfect articulation between the schools so that pupils are promoted from one to the other without friction, loss of time or credits, and with such smoothness that there will be no dropping out of school at this point.

There will be administratively many problems that will have to be met as they arise, such as the question of whether there shall be diplomas issued to those finishing the junior high school and whether there shall be graduation exercises. There seems to be a desire on the part of the students to have graduation exercises at which diplomas shall be issued to them by high authority. This diploma should state that it is a certificate of satisfactory completion of a certain curriculum and of promotion to the higher school. There should be a feeling on the part of the pupil that he must go on to the higher school. It will be the aim of the superintendent to get 100 per cent of the graduates to enter senior high and to do it at once. Graduation exercises will be held in the middle of the school year when no long vacation may interfere with the continuity of the work. After the diplomas have been presented, the principal of the senior high school should address the graduates welcoming them into his institution. He will have an opportunity at this time of influencing those who are undecided about their future. Even before finishing the junior high school, the pupils will have been under the guidance of a counselor or vocational adviser. He will have made out all the programs of study of those who are about to graduate. There will be very little break between the lower and the higher school.

Promoting by subjects, there are bound to be some cases of uneven promotion. If four high school credits are required for admission to the senior high school, some pupils will graduate from the lower school with five or even six. Shall these extra credits be recognized, or shall they be regarded merely as making the pupil more fit to do the higher work? Shall there be a standard grade of work in the junior high school in order that the pupil may be permitted to go on? What should be that

standard or recommendable grade? Shall the higher school maintain classes in algebra, geometry, etc., for the benefit of pupils who did not take those branches in the junior high school and yet who now need them for certain new purposes unforeseen when the pupil was in the junior high school? If not, what shall be the plan of taking care of such cases? Shall there be a standard of excellence in the use of English required for admission to the senior high school? Shall there be a physical standard? These are questions for each superintendent to answer. They cannot be answered *ex cathedra*. The broad principle must underlie these answers, that the higher secondary school is for the masses and that it must be within the possibility of any normal person to enter and do work in it.

**6. Relation of Junior High Schools to Senior High Outside Cities.** The California Legislature has set the minimum limit of taxable property of a high school district maintaining a junior college at \$3,000,000 assessed valuation. This would mean a city of not less than 5000 population. Such a city would probably have twelve hundred pupils distributed as follows: Grades 1 to 6, inclusive, 600 pupils; grades 7 to 10, inclusive, 300 pupils; grades 11 to 14, inclusive, 300 pupils. Such a city would, if compact, maintain one collegiate high school and only one junior high school. The rule seems to be a reasonable one, for a high-school-college could scarcely succeed with fewer than 300 students and 15 teachers.

What shall be done in cities of fewer than 5000 people? Let us consider several classes of such communities in an attempt to work out approximately accurate plans.

(a) Towns of 2000 to 5000, surrounded by well settled rural districts: Such a community should organize a union high school district for the maintenance of one



senior high school. The town itself would have a junior high school to which pupils living outside the limits might come. Or, if there were in the union district one village of, say 500 people, such village might form the center for a union junior high school district. There might arise problems of adjustment distinct from the city's.

(b) Towns of 2000 to 5000 not surrounded by well settled rural districts: Such a town would best maintain in one building a junior and senior high school. In such an institution the first three grades might occupy one wing and the other three grades another wing.<sup>1</sup>

(c) In towns of 500 to 2000 surrounded by a thickly populated rural district, the same arrangements as those described in (b) might be secured. If such a town were within the shadow of a larger town, the smaller would be better served to unite in a union high school district with the larger, at the same time maintaining a junior high school of its own.

(d) Towns of 500 to 2000, not surrounded by a thickly populated rural community, would do best by maintaining a first-class junior high school of four grades.

(e) Communities smaller than 500 should attach themselves to a near-by larger town or unite with contiguous districts in a union high school district.

(f) A community smaller than 500 people and standing alone should maintain a good elementary school, and if sufficient funds exist, a junior high school. Such a community would not have more than 100 pupils, thirty of whom would be in the seventh, eighth and ninth grades. It could then have one teacher's full time for the junior high school.

<sup>1</sup> An example is the junior-senior high school at Red Wing, Minnesota.

In discussing the relation of the senior high to the junior high school, only communities described under (a), (c), and (e) need be considered; and these all have the same problem. That problem arises over the fact that the two schools are under different boards of education. Greater tact and larger educational perspective must, under such conditions, be required of the principal of the senior high school and of the principal of the junior high school. Certain definite rules would have to be laid down and adhered to in good faith by both heads and by both boards. Lacking a district superintendent, the county superintendent should wisely, tactfully, and with clear educational ideas exercise supervisory and conciliatory jurisdiction over the relations of the two schools.

It would be wise and proper for the principal of the senior high to take the initiative in a case of this kind and work out rules and regulations with the principals of the lower schools. If he does not take the initiative the county superintendent or one of the junior high school principals should take the initiative. They should arrive at an understanding of the purpose of secondary education. It should be clearly seen that each school has a definite problem to solve, and the other school should co-operate to assist in making the solution easy and successful.

## CHAPTER V

### COURSES OF STUDY

The junior high school is not a panacea for all social and educational ills. For the limited ills set forth in chapter one this school will prove, and is to a very considerable extent already proving, a cure. It remains, in the chapters that follow, to show how the junior high school acts in operation, how it meets the demands placed upon it. These matters will be discussed under the head of curriculums, courses of study, teaching in the school, and administration.

The terminology as defined by the Committee on College Entrance Requirements will be used. "Program of studies" refers to all the subjects taught in the secondary school without reference to organization of these subjects. A "subject" is a branch of learning separate and distinct in subject-matter, as Latin, algebra, or history. A "course" is the subject-matter of a subject offered within a definite period of time, as first year Latin, second year algebra, ancient history, (since this course by general usage is known to be a definite year unit of high school study). A "curriculum" is any systematic arrangement of courses which extends through a number of years and which leads to a diploma of graduation.

**1. Preliminary Consideration.** Two phases of the program of studies demand attention: What subjects are to be taught? When is each course to be taught? In answering the first question, one must bear in mind the psychology of the adolescent student and the aims of

society. If a subject does not contribute richly to the development of the boy or girl, or will not serve to advance society, it should be discarded, no matter how much the children may like it or how many teachers have prepared to teach it. The fact that the college or university may require for entrance a certain subject of small value will serve to bolster up that subject for a while; but secondary school authorities should endeavor to have the colleges change their entrance requirements in respect to such a subject and should plan to eliminate it after a reasonable time for adjustment.

One must also decide when the subjects are to be taught, at what age, in what year of the curriculum. Here it must be kept in mind that many subjects are to be left for the senior high school and junior college or even for the university. Other subjects can be best taught in the junior high school. For each individual subject, an attempt will be made to determine to what school it properly belongs and, if to the lower secondary school, to what year.

The experience of several cities that begin the secondary course with the seventh grade indicates that through the junior high school age—twelve to fifteen—pupils successfully carry twenty-five recitation hours per week where each lesson is two-thirds the difficulty of a senior high school lesson. In the schools of Pomona, California, a pupil earned in the junior high school an average of two and two-thirds credits per year, in the next two years (eleventh and twelfth grades) he earned an average of four credits per year, and in the last two years (thirteenth and fourteenth grades), an average of five. If the curriculums for the junior high school were based on this plan, the normal adolescent would be expected to carry successfully five courses, each for one year and a half. A course carried for one year and a half would be equiva-

lent to the same course carried for one year in senior high school, where only four different subjects are taken at one time. Expressed in another way, the senior high school student does as much in one fourth of a year as a junior high school pupil does in one third of a year.

There is also the matter of election of courses. Shall there be a free election of courses by the pupil? or, shall there be certain required courses? If the pupil has an election, how often may he elect? Must he continue an elected course until he finishes it, or may he drop it at the end of a semester and elect another in its place?

Experience of a large number of schools now indicates that election of perhaps half of their courses by pupils under guidance of teacher and parent or of vocational adviser is advisable. The most generally required courses are two years each of physical education and English. Even if these are in general required, it would be unwise to impose them on a student who does not need them. The other subjects may be elective; but a pupil should be expected to take a course that he needs. If a boy has not mastered the fundamentals of arithmetic, he should be expected to take such a course in junior high school. Hence, a wise counselor to help the student in electing subjects and courses is needed.

A pupil should be required to take a course chosen until he has completed it or has put on it a reasonable amount of effort. Here, again, the youth needs a guide and adviser in the principal or parent. Instinctively a pupil wants to drop a course in which he is failing or which he dislikes. He also wants to avoid the subjects taught by the teacher whom he dislikes. In these matters a principal will exercise careful discretion.

The junior high school is the trying-out school where young people are expected to find themselves. The counselor must, then, be insistent upon exposing the



student to as many subjects as possible without allowing him to become fickle or flabby, changeable and always seeking the easiest course.

**2. Physical Education.** From the principles set forth earlier it is evident that the subject of physical education should have a large place in the junior high school. The purpose of the course is to develop the body, to make it fit for the uses for which God's plan seems to intend it. Athletics and gymnastics are by no means all there is to this, the subject of paramount importance. Schools are attacking this problem in a scientific spirit, with the fullest appreciation of its worth and value to the happiness of the individual pupils, to the improvement of the race, and to the health and morality of society.

There is a theoretical or "book" side to physical education. Physiology and hygiene have long had a place in the school curriculum. Physiology is offered in the secondary school as a formal subject, independently or in connection with biology. In the junior high school pupils are taught the functions of the organs of the human body, their pathology and hygienic care. In such work, the boys and girls are in separate classes, the boys under a man teacher, the girls under a woman teacher. In this way the right kind of appeal is made to the young people.

There is often an interesting, instructive, and thoroughly trustworthy textbook. The book is written, not with an idea of frightening boys, but with the serious purpose of informing them on matters pertaining to their health and strength. Science does not bear out the scare-head statements of old physiologists on alcoholic drinks, narcotics, and stimulants, or the still more unreliable twaddle of quacks concerning the results of sexual errors. The plain truth is sufficiently alarming. Boys frequently point to the facts that there are many healthy

old men who smoke tobacco and drink liquor, and scientific physiologies must square with these facts.

The physiologies have something to say about diet, candies, gum chewing, endurance running, cosmetics, self-poisoning, bad air, soiled underwear, children's lunches, over-exercise for girls, greediness, climbing stairs, regular habits of bowels and kidneys, lying in bed in the morning, irregular eating, late parties, thin dresses, care at the monthly periods, incorrect posture in reading, decaying teeth, bicycle riding, tight lacing, tight shoes, high heels, coffee drinking, standing long, straining the vocal cords, abrasing the skin, abuse of the hair, neglect of colds, hard blowing of the nose, lack of sleep, unnecessary exposure of the head to the sun, wet feet, over-study, eyestrain, contagious diseases, mosquitoes and flies, impure food. It will be noted that many of these matters refer especially to girls. It seems as if undue emphasis has heretofore been placed upon dangers to the health of boys, whereas it is equally important that emphasis be placed upon dangers to girls. Men are believed to be by their very nature and by the outdoor active life they lead far more immune to constitutional ailments.

In this connection sanitation and community physiology frequently form a part of the course in physical education. The disposal of sewage, the healthfulness of the home, the care of public toilets, the purity of the water supply, the inspection of public markets and groceries, the prevention of factory smoke, the sanitation of bakeries, meat markets, confectioneries, and hotel beds, and the quarantine of contagious diseases are matters that children now study about early in the teens. Closely associated with the prevention of sickness is the improvement of health. Here the selected text may tell of measures to improve the strength and virility of the race. Such measures include a wide variety of public

activities, such as the planting of parks in cities; the growing of shrubbery, flower gardens, and lawns about the homes; recreation centers and athletic clubs; public baths; paving and widening of streets, public driveways, bridle paths, promenades, water courses; public excursions to the open country and to the mountains; mountain playgrounds for children and adults; "better babies" campaigns; eugenic marriage campaigns; roof gardens on tenement houses; boys' and girls' camps; compulsory military drill in school; county and state athletic tournaments; and all other measures that tend to make the race healthier and stronger.

The above courses are to be regarded as theoretical physical culture. Applied physical education aims to do in school all that can be done (1) to keep boys and girls healthy, (2) to restore to health those who are not well, (3) to correct physical deficiencies, (4) to develop muscle and bodily control, (5) to inure the young people to physical labor, (6) to develop moral courage and squareness. No system is complete or even passably satisfactory unless it does all these things well. This is a big program, one not to be carried out by a teacher whose sole qualification is a knowledge of football and a record as a star on a college team. The teacher should excel in a seriousness of purpose and a fullness of plans on how to accomplish all the points given above.

All these things are being done in some cities and they should be done in all if the next generation and the following generations are to be benefited. There must be gymnasiums, shower baths, playgrounds, equipment and paraphernalia, testing and measuring machines. Above all, there must be a master organizer to plan the work so as to reach every pupil—a person who can also act as the director.

How often should formal exercise be required? For how many years? Should credit be given? How long should each exercise be? Should the exercises be in the morning, afternoon or after school? May anybody be excused? Can other work be substituted for setting-up exercises? Should dancing be allowed in school? If so, should it be required of children whose parents object to it on moral grounds? Should military training be required? Optional? Should pupils furnish their own suits, or should the school district furnish them? Should girls be permitted to wear silk stockings in the gymnasium? Should Rugby, American, or soccer football be adopted? Should girls play basketball? Should boys and girls play together? Should girls be directed by men teachers? Should physicians and dentists examine school pupils? Is a woman nurse preferable, especially for girls? These and dozens of other questions must be left to the intelligence of the director.

The following are typical exercises suitable for junior high schools:

#### EXERCISES SUITABLE FOR JUNIOR HIGH SCHOOLS

1. Marching Tactics (mental alertness, concentration, accuracy).
2. Selected Gymnastic Exercises (flexibility, strengthening, coordination).
  - (a) Not fatiguing nor uninteresting exercises.
3. Drills (accuracy, co-operation, co-ordination).
  - (a) One wand, dumbbell or Indian club drill each semester.
4. Games (courage, self-control, fair play).
  - (a) Tag: Three Deep, Prison Base.
  - (b) Goal: Snatch a Club, Roll Ball.
  - (c) Personal Combat: Pull the Stick, Cockfight.
  - (d) Singing: Jolly is Miller, Mulberry Bush.
  - (e) Team: Tennis, Basketball, Football, Baseball, Relay Races.
5. Dances (co-ordination, self-confidence, elasticity).
  - (a) Two folk dances and one interpretive dance each semester: Irish Lilt, Orlitza (Russian), The Wind.

6. Suitable apparatus work: Horse, Buck, Parallel Bars (muscular control). Suitable Track Events.<sup>1</sup>

**3. Manual Training.** The following outline of practical arts is so typical of the best practices in junior high schools that it is given in full as it appears in a state bulletin.<sup>2</sup>

### WOODWORK

#### Bench Work

TYPE JOBS	STUDENT CAN	STUDENT SHOULD KNOW
Jobs, involving the use of butt, lap, miter, mortise and tenon, and dowel joints.	Use, take care of and sharpen the common hand tools. Lay out and work from drawings. Figure bill of material. Repair furniture. Prepare surface for finishing.	Kinds, grades, uses sizes and finishing properties of woods. Kinds, sizes and uses of wood fastenings. Kinds, sizes and uses of cabinet hardware. Sizes and uses of reed, cane, fibre cord, and others.

<sup>1</sup> Course of Study for Junior High Schools, State Board of Education, Little Rock, Arkansas, 1924.

<sup>2</sup> Idem. Much of what appears in this bulletin is taken from a variety of monographs and outlines issued by the federal bureau of education.



## CARPENTRY

## TYPE JOBS

Jobs involving cutting, placing, nailing, framing, raising and lining up.

## STUDENT CAN

Lay out and level foundation.  
Cut and fit stock in the proper place.  
Line up and brace wall, frame for openings, fit and place accurately all material necessary for closing in the sides and ends.  
Lay off, cut and frame common rafters and place roof covering.  
Hang door and window.  
Read blue prints and take off bill of material from plans and specifications of simple structure, glazing.

## STUDENT SHOULD KNOW

Name of standard stock in frame of house.  
Locate studding on plastered walls.  
Factors in selecting the location of house site.  
Essential factors in determining the value of a constructed house.  
Kinds of roofing and methods of laying.  
Types of building construction.  
Safety precautions.

## WOOD FINISHING

## TYPE JOBS

Jobs involving transparent finish.  
Jobs involving opaque finish.

## STUDENT CAN

Use and care for stain, filler, paint and varnish brushes.  
Select and apply stain, filler, wax or varnish to give the desired results.  
Select and apply paints and enamels, whitewash and kalsomine.

## STUDENT SHOULD KNOW

Kinds of stains, fillers, varnishes and wax.  
Kinds of finish to use for different materials.  
Effect of temperature, moisture, etc., on finishes.  
Characteristics of finishes as determined by its composition and use.  
Character of oil and water rubbed finishes.

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## HOUSEHOLD MECHANICS

## Electrical

TYPE JOBS	STUDENT CAN	STUDENT SHOULD KNOW
Jobs involving the wiring of one or more bells and push buttons, including the return call system.	Measure and cut wire, remove insulations, splice, solder and tape. Make connections to buzzers, bells and push buttons, batteries, etc. Read and make wiring diagrams.	Electrical currents and magnetic forces. Conductors, generators, batteries and circuits. Principles of electric magneto. Conventions used on wiring diagrams. When and how to fasten wire. National Electrical code.
Jobs involving house wiring, open type.	Install knobs, cleats, tubes, loom, meter loop, outlet, switches, and fixtures. Read electric meter.	State and local rules and regulations. Electrical measurements. Figure costs from meter readings. Principles of electrical heating appliances.
Jobs involving repairing electrical appliances with thermal units.	Disassemble, locate, replace or repair defective part or parts, test and assemble.	Principles and use of the thermostat.
Install telephone system.	Install simple telephone and telegraph systems.	Principles of sound transmission by electric current.
Install telegraph system.		Common code used in sending messages.

## PLUMBING

TYPE JOBS	STUDENT CAN	STUDENT SHOULD KNOW
Repairing cocks, faucets, bibbs, and valves.	Use wrenches, screw drivers and pliers on unfinished and finished fixtures.	Water pressure and water purification systems.
Installing plumbing fixtures.	Measure, cut, thread, caulk and lead pipe.	Construction of kitchen, lavatory, bath room, and toilet fixtures.
	Set and connect fixtures.	Sizes, kinds, grades of pipe and pipe fittings.
	Test water, sewer, and gas systems.	Read plumbing layout.
	Read water meter.	Sewer disposal.
		State and local sanitation laws and methods of testing.
		Figure cost from meter readings.
		Principles of heat radiation, the advantages and disadvantages of hot water and steam heating systems.

## SHEET METAL

TYPE JOBS	STUDENT CAN	STUDENT SHOULD KNOW
Jobs involving soldering and riveting lap seams, folded seams, and wiring.	Use and care of soldering coppers, tin snips, fire pot, scrapers and other tools and materials.	Layout and transfer of patterns. Kinds, uses and composition of fluxes. Methods of manufacturing, composition, and sizes of sheet metals. Principles underlying heating by hot air. Method of conveying hot air. Types of hot air systems.

## CONCRETE

TYPE JOBS	STUDENT CAN	STUDENT SHOULD KNOW
Jobs involving the constructions of footings, floors, foundation, walls, curbs and special shapes.	Figure proportions of material by volume. Read plans. Run a level. Use and care of tools and materials. Build forms. Make proper mix for specific jobs.	Cement and its qualities. How to handle and store. Methods of manufacturing. Theory of mortar and concrete. Elementary principles of reinforcing. Kinds of aggregate. Elementary principles of form construction.

4. **English.** In America educators lay great stress on the teaching of the vernacular. In some English-speaking lands the people are not so proud of the mother tongue and not so insistent upon its being spoken with a

certain inflection or even upon using it at all. In some parts of England, for instance, they are prouder of their brogue than of the great universal language; they say that the newspapers and railroad travel will soon enough break down differences in dialects, and consequently they put forth no conscious effort to conform to the standards of good literature and cultivated conversation. In a land as large as America we realize the importance of aiding nature, and our schools become the dynamic factor in universalizing the English language. Other nations go a step further by the creation of academies that speak authoritatively on what is and what is not good Spanish, French, or what-not. In the United States our schools undertake to teach standard English, but each teacher is left to decide for himself what is standard.

English, as a subject to be pursued in the secondary schools, covers a number of branches that were formerly spoken of as separate subjects: spelling, grammar, reading, composition, rhetoric, etymology, oral English, literature. Still further back in the past several of these existed each as two or more subjects. The tendency of late has been to group all these matters under the one head of English. Along with this custom has gone the making of English a required subject<sup>v</sup> throughout the elementary school and the high school. And now have come in very recent years certain additions to the general subject of English, such as debate, public speaking, private speaking, dramatics, and journalism. Many high schools that require four years of English permit pupils to earn additional credits in these extra subjects. It would be possible to earn eight credits (of fifteen required for graduation) in this field of English and its related subjects. All these subjects have as their main object the improvement of the students in the vernacular.



Makers of curriculums for secondary schools are, therefore, finding the four years of high school entirely inadequate for the mastering of the vernacular. The junior high school movement, tending to lengthen the secondary course to eight years stretching from the beginning of the seventh grade to the end of the junior college, offers a solution to the problem. Pursued as one subject through eight years, English can be made to cover conventional English plus dramatics, journalism, oral English, public speaking and debate, and a year of backgrounds of English in Rome and in Saxon England.

In composition the following outline is suggestive:

#### SEVENTH GRADE

1. *Spelling.* Efforts centered on a few important words.
2. *Word Study and Dictation*
  - (a) Ability to use the dictionary in finding definitions and the pronunciation of words.
  - (b) Simple prefixes and suffixes, word building and word defining (list to be determined by the department).
  - (c) Abundant dictation for testing and for drilling. Use material "in itself worth while."
3. *Paragraphing*

Understanding of the meaning of a sentence—ability to distinguish between a sentence and a group of words. Ability to write a paragraph consisting of several well constructed sentences.
4. *Letter Writing*

The friendly letter—heading, salutation, body, complimentary close, and signature. The outside address, and items of address.
5. *Punctuation*

Beginning and end punctuations of sentences.  
The comma in series, direct address, apposition, and items of address.  
Capital letters in proper names.
6. *Grammar*

The parts of speech recognized by the chief function of each.

The sentence as made up of subject and predicate—with or without modifiers.

Connectives, object, predicate noun, the predicate adjective.

Kinds of sentences—declarative, interrogative, or imperative.

The subject as simple or modified; simple or compound.

## EIGHTH GRADE

1. *Spelling.* Spelling of words used. List to be determined by the department.

2. *Word Study*

Dictionary work, word study, and dictation continued through the eighth grade. Other prefixes and suffixes added. Choice of word and its use emphasized.

3. *Paragraphing*

The ability to write with substantial ease free from sentence errors.

Create flexibility and variety of sentence structure. This work should show the application of the general principles of paragraphing.

4. *Letter Writing*

Development of the friendly letter.

The business letter—an order for goods; application, inquiry. (Motivate this work by making letter-writing real.)

5. *Punctuation*

Review the work of the seventh grade.

The comma to set off independent elements, parenthetical expressions, and phrases and clauses out of their natural order.

6. *Grammar*

In connection with oral and written composition teach the sentence, simple, complex or compound, principal and subordinate classes.

Types of conjunctions.

Parts of speech developed.

Past tense and perfect participles of troublesome verbs. (Make a list, and give abundant practice.)

## NINTH GRADE

1. *Spelling.* Efforts centered on words used by the pupils.

2. *Word Study*

Simple root synonyms—choice in use emphasized. (List to be determined by the department.)

3. *Paragraphing*

Ability to write a connected series of paragraphs, avoiding mechanical errors and showing a command of sentence structure. (Test by a standardized scale.)

4. *Letter-Writing*

Review the work of seventh and eighth grades, compare progress made.

5. *Punctuation*

The composition work of the ninth grade should unify and weave together the five elements (grammar, punctuation, spelling, mechanics, and theme writing) instead of teaching them as unrelated subjects. The result is a step-by-step course leading to sentence mastery.<sup>1</sup>

**5. Foreign Languages.** What foreign languages, if any, shall be taught in secondary schools? Why should any foreign language be taught? If any is taught, where shall it be placed in the curriculum? How much of each language shall be taught? These are questions that are challenging the best thought and the widest investigations of educators.

The range of foreign languages thinkable as subjects for secondary schools embraces Greek, Latin, German, French, Spanish, Italian, and Russian. These are languages said to have cultural value, disciplinary value, or practical value to Americans. Greek has by common consent been dropped from public secondary schools. The demand for it has been so small that it has been found impracticable to organize classes in it. Russian and Italian, though growing in popularity, may be left out of consideration. Whatever decision is made in the

<sup>1</sup> *Idem.*

remaining cases will be applicable to these two modern languages if they fulfill the same end. If any foreign languages are to be taught in American secondary schools, they are Latin, German, French and Spanish.

Why should any foreign language be taught? There is a growing sentiment that no foreign language is of practical value. This is particularly true of German and French. The number of German-speaking people in the United States is diminishing so rapidly that except in isolated sections the language is not widely heard. Furthermore, nearly all German-speaking Americans can speak English sufficiently well for all ordinary purposes; and, if the wide-spread movement of societies for the education of the foreigner continues, the non-English-speaking German will shortly be a negligible factor. Frenchmen are even more scarce.

But even if it were granted that German and French are practical languages in America, can a boy acquire in school the ability to speak the language? After two or three years of high school German, how many boys could understand a German conversation, or could carry on conversation in German? The probability is that not one in ten can do it. The same is true of Spanish.

The practical or usable value of a foreign language as taught in our secondary schools is, therefore, very little. The doctrine of formal discipline does not defend the foreign languages on the ground of their having transfer value superior to other subjects. The culture, the broader outlook upon life gotten by two or three years of a foreign language is so negligible in quantity or quality that one could not justify the taking up of so much of the pupil's time on that ground alone. Certainly it could not weigh in the balance against the narrowing, the deadening effect of hours upon hours spent upon looking up the meaning of words in the lexicon—looking up the

meaning of the same word a half-dozen times if it occurs that often on a single page.

The truth is that the foreign languages have been kept in the curriculum because the colleges and universities have required a foreign language for entrance and because the children take a fancy to the idea of getting a smattering of a language not known by everybody. A more justifiable reason for electing a foreign language would be that it is usually taught by an excellent teacher—a teacher who could teach and inspire boys and girls through the medium of any subject whatsoever.

For the junior high school there is a strong justification, it is claimed, for some Latin and possibly for some Old English on the ground that they have an excellent reflex action upon English. Through them the pupil learns to understand the grammar of his own language, he gets a larger insight into the meaning of English words, and he strengthens and extends his English vocabulary. One semester of each would probably be sufficient, especially if they were taught with this end in view.

To sum up: in some parts of the United States a certain foreign language if mastered may have some practical value; when foreign languages are dropped from the curriculum of secondary schools, the process must be gradual so as to permit colleges and teachers to adjust themselves to the change; and a semester of Latin, of German, of French, or of Old English may be retained permanently for the value to English. Until foreign languages shall disappear altogether from the secondary school they should be made optional in the junior high school and should be taken by such pupils only as are compelled to have them to meet college requirements, or for other immediately practical purposes.

The following is a typical course in French:



## SEVENTH "B" GRADE

For the first six weeks the work should be entirely oral. The time to introduce a textbook depends upon the class, and must be left to the teacher's judgment. Correct pronunciation should be stressed and secured through imitation and phonetic drill. The keynote to success with the Direct Method is repetition and drill.

The vocabulary in nouns may be increased by passing from objects of the room, parts of the body, numbers, greetings, day of the week and months, to the exterior of the building, its surroundings, the home, its rooms, the family, meals and foods, domestic animals, playthings and games.

The textbook when put in the hands of the child gives excellent material for conversation, dictation, and memory work. The remainder of the term should be spent reading the stories, forming and answering questions based on them, and retelling them. Grammatical points and irregular verbs should be presented only as they appear in the reading.

## SEVENTH "A" GRADE

The plan of the first term should be continued: Fables and short stories read and the remaining tenses of the indicative of the *er* verbs learned; regular *ir* and *re* verbs taught and more irregular verbs introduced; dictation and memory work given.

Grammar should not be formally presented yet. Constructions should be explained as the need arises: possessive pronouns, pronoun objects, demonstrative pronouns and relative pronouns. Other grammatical points to be treated are: *on*, the idioms on *avoir*, *faire*, and *il faut* (without subjunctive).

## EIGHTH "B" GRADE

Such stories as *La Tache du Petit Pierre* should be read. Reading, translation, oral questions and answers, the retelling of the story, and dictation is the method of procedure.

Grammatical points presented in the seventh grade are to be reviewed and enlarged upon, and the list of idioms increased. The present subjunctive should be introduced and common irregular verbs studied.

## EIGHTH "A" GRADE

Suggested texts: *Sans Famille*, *Le Tour de France par deux Enfants*, and similar works.

A simple grammar should now be placed in the hands of the pupil—simple compositions and short synopses of incidents in the text written.

#### NINTH "B" GRADE

Suggested text: *Le Voyage de M. Perrichon*.

Lessons in grammar should be assigned; verbs of regular conjugations reviewed, and irregular verbs studied.

#### NINTH "A" GRADE

Text: *Contes Choisis* or equivalent.

Compositions should be written and special attention given to verbs; elementary grammar text completed and reviewed.<sup>1</sup>

**6. Mathematics.** It is believed by some that boys have strongly outcropping at adolescence the measuring sense.<sup>2</sup> This is generally interpreted as the age for mathematics, when the boy is able to grasp the principles of algebra and geometry and apply them to objective problems. A careful trial of teaching pure mathematics to early adolescents reveals the pupils' lack of ability to solve problems that require an application of the principles of algebra and geometry. The chief difficulty here is that the pupil is unable to unravel the mysterious wording of the problems so as to get his first statement.

In Pomona, California, a system of progressively extending algebra lower and lower in the grades was tried. It was attempted first in the A8 grade, then in the B8, then in the A7, finally in the B7. The most interesting result was obtained in the B8 grade. A B8 class was started in algebra at the same time as a B9. There was no appreciable difference in the character of the pupils. If anything the ninth grade was more of a "picked" group than the eighth grade—picked in the sense that the

<sup>1</sup> *Idem*.

<sup>2</sup> Dr. G. Hanley Hall enumerated a number of characteristics of adolescence, believed to be distinctive of the period. Cf. *Adolescence*, Vols. I and II.

duller children had been eliminated. At the end of one semester the two classes stood together; during the second semester, the most intricate problems being eliminated for the eighth graders, the two classes kept together, reaching quadratics at the same time. The number of intricate problems eliminated, however, did not exceed twenty. Both classes finished the course without one student failing to make a passing grade.

The suggestions in the Arkansas State bulletin are so good that quotation in full is justified:

The business application of arithmetic should be continued late enough in the course to bring to their study the pupils' greatest maturity and experiences. Arithmetic should not be completed before the pupil has acquired the power of using algebra as an aid.

#### B. *Intuitive Geometry*

1. The direct measurement of distances and angles by means of linear scale and protractor.
2. Areas of the square, rectangle, parallelogram, triangle and trapezoid; circumference and area of the circle; surface and volumes of solids; the construction of the corresponding formulas.
3. Indirect measurement by means of drawings to scale; use of square-ruled paper.
4. Geometry of appreciation; geometric forms in nature, architecture and industry.
5. Simple geometric constructions with ruler and compasses, T-square and triangle.
6. Familiarity with such forms as the equilateral triangle, the  $30^{\circ}$ - $60^{\circ}$  right triangle, and the isosceles right triangle; symmetry; the sum of the angles of a triangle; the Pythagorean relation.
7. Informal introduction to the idea of similarity.

Much opportunity should be provided for exercising space perception and imagination. Before the end of this intuitive work the pupil should have definitely begun to make inferences and to draw conclusions from the relations discovered.

#### C. *Algebra*

1. The formula—its construction, meaning, and use (a) as a concise language; (b) as a short-hand rule for computation;

- (c) as a general solution; (d) as an expression of the dependence of one variable upon another. The work should include translation from English into algebraic language, and vice versa; the nature of the dependence of one variable upon another in the formula should be examined and analyzed.
2. Graphic representations in general—their construction and interpretation in (a) representing facts; (b) representing dependence; (c) solving problems.
  3. Positive and negative numbers—their meaning and use (a) as expressing both magnitude and one of two opposite directions or senses; (b) their graphic representation; (c) the fundamental operations applied to them.
  4. The equation—its use in solving problems: (a) linear equations in one unknown; (b) simple cases of quadratic equations when arising in connection with formulas and problems; (c) equations in two unknowns; (d) simple applications of ratio and proportion in cases in which they are generally used in problems of similarity and in other problems of ordinary life; (e) simple cases of variation.
  5. Algebraic technique
    - (a) The fundamental operations—avoid “nests” of parentheses, multiplication and division involving much beyond monominal and binominal multipliers, divisors, and quotients.
    - (b) Factoring—(1) common factors of the terms of polynomials; (2) the difference of two squares; (3) trinomials of the second degree that can be easily factored by trial.
    - (c) Fractions—the four fundamental operations considered only in connection with simple cases.
    - (d) Exponents and radicals. Confine to the simplest material required for the treatment of formulas. The laws of positive integral exponents should be included.
    - (e) Stress the checking of solutions.
- D. *Numerical Trigonometry*
- (a) Definitions of sine, co-sine and tangent; (b) their elementary properties as functions; (c) their use in solving problems involving triangles; (d) the use of tables of these functions to three or four places.

**E. *Demonstrative Geometry***

A limited number of propositions with no attempt to limit the number of fundamental assumptions, the principal purpose being to show the pupil what "demonstration" means.

**F. *Problems***

Much of the emphasis now placed on formal exercises should be shifted to the "concrete" or "verbal" problem. Use "practical" problems as far as the maturity and experience of the pupil will permit. And, above all, the problems must be "real" to the pupil. The value of the problem is measured by its degree of reality to the pupils.

**G. *History and Biography***

Leading events in the history of mathematics, used incidentally for the purpose of adding to the interest of the pupils.

**H. *Topics to Be Omitted or Postponed***

1. Highest common factor and lowest common multiple, except the simplest cases involved in the addition of simple fractions.
2. Theorems or propositions relating to alternations, inversion and division.
3. Literal equations, except such as appear in common formulas.
4. Radicals, except as indicated above.
5. Square root of polynominals.
6. Cube root.
7. Theory of exponents.
8. Simultaneous equations in more than two unknowns.
9. The binomial theorem.
10. Imaginary and complex numbers.
11. Radical equations, except such as arise in dealing with elementary formulas.



## CHAPTER VI

### COURSES OF STUDY (*Continued*)

**1. History and Politics.** There are a number of considerations making the teaching of history and politics imperative in the junior high school. Among them are the incompleteness of the elementary school course, the growing reasoning powers of adolescents, the desire to be considered grown up, the budding desire to assume the burdens of society, the desire for a voice in government, the love of the heroic. Out of the many possible courses in this field, what shall be taught in the junior secondary period?

The following are the units collated from the published courses of study of half a hundred cities and towns: (1) European backgrounds, (2) colonial period of American history, (3) national period, (4) community civics, (5) state history, (6) early ancient history, (7) late ancient history, (8) medieval history, (9) early modern history, (10) 18th, 19th, and 20th century history, (11) English history to 1700, (12) English history since 1700, (13) advanced American history to 1828, (14) advanced American history since 1828, (15) advanced civics, (16), elementary economics, (17) sociology, (18) problems in American democracy, (19) problems in American democracy, continued, (20) advanced economics, (21) economic and social problems, (22) constitutional history of England, (23) Europe 19th Century, (24) sectional history. If we follow the recommendations of the Committee of Eight, we will assign European backgrounds to the sixth

grade, probably carrying the work to the American Revolution in that grade. It must be assumed that in the fifth grade the children have had a narrative and biographical account of American history through the entire range of white men's existence on this continent. If 1 and 2 have been done in the sixth grade, 3 might occupy the first semester of the junior high school, followed by 4 in the second semester; 5 might occupy the third semester, while 6, 7, and 8—covering the conventional first year high school history—would occupy the fourth, fifth, and sixth semesters leaving Modern European History to the senior high school. In substance the above is a commonly used plan, and would meet the requirements of a junior high school that embraced the seventh, eighth, and ninth grades of one year each. The well-worked out Berkeley plan gives 2 and 3 in the seventh grade, 4 and 5 in the eighth grade, and 6, 7, and 8 in the ninth grade.

How much of this work should be required of all pupils? If there were sufficient time, everyone should be required to take these six semesters of history. As it is, a minimum amount should be fixed—probably two units. If two units only are required, they should probably be 3 and 4, the last half of American history and all of community civics. If general history is not taken, the student will be greatly handicapped thereafter. However, the youth will have had European backgrounds which in a general way covers world history. He will also have an opportunity later to take English history, English constitutional history, and Europe in the 19th and 20th centuries. These cover the ground pretty thoroughly. If, however, the school is not organized on the 8-grade secondary school plan, more pressure should be brought to bear upon the pupil to take world history in the junior high school.

Will the pupil have opportunity to get the things he needs as summarized in the first paragraph of this topic if he does not take general history in the intermediate school? The love of the heroic may be satisfied in heroic fiction and verse; the desire for a voice in government, in student self-government and other student organizations. The other tendencies may be satisfied in debate, public speaking, and church activities. The reason may find development in mathematics, in the sciences, and in English. The results obtainable are not nearly so good as they would be in world history, nor the outlook upon life so broadened. Youth should be encouraged to take history, not so much because they are future voters but because all through history and civics can the pupil express himself and develop the right social-civic attitudes. In community civics one gets an understanding of social benefits and obligations, and puts into practice the principles learned.

**2. The Sciences.** The investigating inquisitiveness of the adolescent coupled with the quickened senses of sight, hearing, etc., leads the boy inevitably toward science. If he does not get it in school, he finds it outside of school. Nothing can keep the normal adolescent boy from studying nature and nature's laws. The school has wisely taken over the sciences and is endeavoring to assist young people to get a knowledge of nature by real scientific methods. Not the least benefit to the student is the scientific habit acquired. The foundation of a vocation may also be laid by studying the underlying scientific principles. Thus science is the basis of cooking, mechanical arts, agriculture, mining, and many other occupations.

The sciences commonly taught in the secondary schools are general science, agriculture, biology, chemistry, zoology, botany, physical geography, and physics.

The difficult mathematics of chemistry and physics have forced these subjects into the eleventh and twelfth grades. Zoology and botany have likewise tended toward the maturer years of youth. By common consent physical geography, biology, and elementary agriculture have settled down in the ninth and tenth grades; while general science as a foundation science has until recently occupied the ninth grade and is now tending downward into the eighth grade.

General science as a teachable subject has not been standardized; it is still in a pliable condition. And while it is still in this state, it will be easy to adapt it to whatever grade to which it may be assigned. There are text-books on the market purporting to be intended for fifth grade children. There would be a danger of such a course falling to the level (developmentally) of nature study. It might teach and inspire a love for nature but could scarcely develop the scientific method or embody a group of facts suitable for a foundation upon which to build a science. General science should go far beyond nature study, be a science in fact.

If general science should be placed in the last four semesters of the junior high school course, it would not need to differ materially from the subject as now taught in the first year of high school. It would, indeed, correspond precisely to that age, and such text-books as have been written for ninth grade could be used in the course. The plan outlined, the laboratory manuals, and the laboratory equipment would be the same.

On the other hand, if general science is to occupy the first year of the junior high school, a considerable change in the course, text-book equipment, and manual would have to be made. The pupils could not understand the language of the text; the materials in the laboratory

would have to be less complex; and a simpler approach to the subject would have to be made.

Elementary agriculture as a text-book science and as a science requiring no experimental farm is teachable in the intermediate school. It has been taught with success in the ninth grade of high schools, and, as was said in discussing general science it would not need much change to adapt it to the last three or four semesters of the junior high school. If, however, general science should have to be taught in the last three semesters of the intermediate school, an unsolved problem would arise as to whether agriculture could be taught successfully, profitably in the first three semesters. It seems upon the face of the question that general science should precede agriculture, but the reverse may become necessary. Elementary agriculture in the seventh grade would be in danger of falling to the level of school gardening—a subject belonging to the elementary school. It is insisted by educators that elementary agriculture shall be a science in the true sense. It is decidedly a basic science upon which vocational agriculture may be built; and the teachers should not forget that it is a science as well as an art.

In case the junior high school does not include the tenth grade, biology would probably be offered in the ninth grade. Biology that includes the elements of zoology, botany and physiology would probably fill a demand in the lower secondary school. Many educators urge that a one-semester course in physiology should be required of all. In the preceding chapter we insisted strongly on the teaching of physiology and hygiene in connection with physical education. Where physiology and hygiene can be made a part of the course in physical education, general science and biology would then touch but lightly on those matters, and could be given in the 8th and 9th grades respectively.



**3. Culture Subjects.** Under this heading we include those subjects that are studied for culture only—those that open new fields for intellectual and emotional enjoyment without any thought of their utilitarian value. It is an open question as to whether the public schools are justified in teaching on public funds subjects that contribute merely to the development of capacity for enjoyment. But the culture subjects have so long been a part of our curricula that they cannot be dropped without disorganizing the school system. Under this head would come the foreign languages, which have such a fascination for the young people of our country! The ability to utter a few phrases in French thrills the emotions of youths! It is very noticeable, however, that the hard grind necessary to the mastery of a foreign language does not greatly appeal to our young people. There are other culture subjects that produce the same effect and yet do not involve such deadening drudgery.

(a) *Music.* Most of our young people now arrive at the beginning of adolescence with an ability to read music of considerable difficulty. As music and other culture subjects have a tendency to raise the mind above the sordid things of life, we may safely assume that they will be taught in the adolescent period as a deterrent if for no other reason. Music is par excellence a culture subject. Classes in vocal music can be taught with inconsiderable expense, the child carrying his instrument around with him. The vocal music of the adolescent school should be free from grinding labor. The joy and inspiration in singing will be sufficient to offset such mental application as may be necessary. Choral singing lends itself to this period. Occasionally one finds a soloist of the “back-fisch” age, but it is very exceptional. Duets and quartets are difficult to produce from among these young people. Boys and girls should hear good music at this age; but

should not be surfeited with classical compositions. One easy grand opera should be heard while the children are in junior high school. It will be epoch-making in its effect.

This is the heyday of instrumental music. If possible, the school should own instruments of all kinds to be used by pupils with or without means. The youth cannot well afford to purchase an expensive instrument, which in all probability will be laid aside in a couple of years. While the frenzy lasts, however, the opportunity should be afforded to learn to play. It will be hard to work instrumental music into a schedule of studies, because much of the teaching must be done by appointment with the instructor. Nevertheless, many schools teach it successfully, and thus help to build up a band and an orchestra of real merit.

The fact that "music hath charm to soothe the savage breast" has wide application in the adolescent period. Many a boy has found solace in music when his growing body seemed aflame for more sensual emotions. Many another boy indifferent to athletics has found himself lionized and happy as a musician in the school band. Besides, there is much healthy physical development in singing or playing, for it strengthens the lungs, enlarges the chest, straightens the back, and induces a posture of body conducive to strength and symmetry.

(b) *Art.* Much that has been said for music may be said with equal emphasis for art. Art as a culture study is justified in that it opens up a large field for high emotional enjoyment. Next to harmony of tones, beauty of color and form attracts the adolescent. In art girls find joy earlier than boys. In fact, art thrust upon boys of the adolescent period, may produce a revulsion, rather than an ecstasy, of feeling. A taste for art can frequently be cultivated. Most girls take readily to art: it is an out-

cropping of budding womanhood, possibly a symptom of adolescence.

In the order of natural development, painting seems to come first, painting with striking colors and bold contrasts. Soon follow blending of shades and harmony of color. Drawing is more or less a drudgery at first, but the necessity for accuracy of perspective, for correct form, for light and shade soon dawns upon the pubescent girl. Paper and canvas give way to wood, leather work, weaving, metal work, clay-moulding, and jewelry. A large proportion of girls would take to this work if it were open for election, and no culture is healthier for the girl, compelling, as it does, out-door sketching, work-shop habits, physical exercise, and sense-education. It may be made of practical value, the girl carrying the work into womanhood and the home. Trimming of hats, designing of one's own dresses, draping of curtains, and decorating of the home—all are rendered easier and more successful by a course in art.

At least two semesters of art and freehand drawing should be open to girls and boys in the junior high school.

(c) *Literature.* One phase of this subject has been discussed in connection with English. It is mentioned here again as a culture subject, aside from its bearing on the student's learning to speak and write well in the vernacular. Whenever literature has failed, in the past, to give the boys and girls a love for reading good books, it has been very largely because they have been taught forms of literature far beyond their developmental stage. We have been expecting children of fourteen and fifteen to like books whose cultural appeal is to adults. It is folly to try to get boys and girls interested in philosophical poetry or problem novels. Their intellectual and moral experience is too limited to comprehend the author's meaning. It is idle to attempt to interest early adoles-

cents in Carlyle's *Essay on Burns*, Emerson's and Macaulay's *Essays*, *Macbeth*, *Hamlet*, much of Milton's, Wordsworth's, Browning's, or Tennyson's poetry, to say nothing of Pope, Addison, Ruskin, Shelley, Keats, and Thackeray.

And why try to interest pupils in, to them, such dry reading when we have dozens of writers and hundreds of books graduated to the adolescent mind. Here, too, it must be remembered, boys and girls begin to diverge in their likes and interests. Girls are fond of Miss Alcott's books, George Eliot, Scott, Whittier, Longfellow, Hawthorne, J. G. Holland, Frances Hodgson Burnett, Paul Leicester Ford, Mrytle Reed, Owen Meredith. Boys like Stevenson, Scott, Cooper, Longfellow, Conan Doyle, Poe (prose), Dickens, Washington Irving, Aldrich. These authors should not be "studied," but merely read. Poetry will have to be read in class or with assigned lessons. As a matter of fact poetry should always be read aloud and in sufficient quantity to tell a story. Heoric poetry should predominate.

Dr. Stanley Hall shows in an interesting diagram that girls reach their quantitative maximum of reading at thirteen and boys a little later. This fact should lead us to conclude that this early adolescent period is our opportunity for introducing young people to good authors. How much shall we expect the boy or girl to read? Hall's investigation shows that each twelve-year-old will read twelve books in a year, and the thirteen-year-old, fifteen books. Let us see what books a girl could read in the two years: *Jo's Boys*, *Little Men*, *Little Women*, *Silas Marner*, *Romola*, *Ivanhoe*, *Kenilworth*, *Snowbound*, *Evangeline*, *Miles Standish*, *Great Stone Face*, *Blithedale Romance*, *Scarlet Letter*, *Bitter Sweet*, *Katrina*, *Little Lord Fountleroy*, *Hon. Peter Stirling*, *Lavendar and Old Lace*, *A Spinner in the Sun*, *Lucile*, and seven others. Boys could read

*Treasure Island, Ivanhoe, Waverly, Rob Roy, Last of the Mohicans, The Pathfinder, The Prairie, Miles Standish, Firm of Girdlestone, Hound of the Baskervilles, The Great Shadow, The Gold Bug, Oliver Twist, Martin Chuzzlewit, Tour of the Prairies, Astoria, Adventures of Captain Bonneville, Prudence Palfrey, and nine others.* One could be quite certain that the boy or girl would find at least one author whom he would want to complete.

This is the period of life when there should be some guidance in reading current literature. There are many magazines whose stories are very wholesome for adolescents; there are others whose stories would be exceedingly harmful to those whose characters are not yet formed. The law ought to step in and prohibit certain story magazines being sold to children under eighteen, for the danger is certainly as great as in the case of cigarettes or liquor. Love stories that are insinuatingly suggestive, adventure stories that arouse the desire to steal or commit semi-criminal pranks have the same demoralizing effect as liquor and tobacco. The school has done a great good in arousing public opinion against the latter: it should commence a legislative campaign against the former.

(d) *Dramatics.* The study of dramatics for its culture value is beginning to book large in the high school. Such a course may be carried on along two parallel lines. There is the theoretical side of the study, dealing with the history of the stage, the mechanics of drama writing, the elements of the drama, method of producing a play. On the theoretical side comes also the study of certain great type dramas—tragedy, melodrama, romance, comedy, and farce. Such a course in theory is called in the curriculum the drama. The other side might be regarded as the application of the principles of the drama to practice. It would involve the actual work of staging a play and would include making the scenery, stage construction



and management, making-up the actors, and acting the play on the stage. Much of the classroom work would be the study of a play to get at the meaning of the words, then the interpretation of that meaning in speech and action. This practical side of the subject might be called *dramatics*. Both the drama and *dramatics* contribute to the broadening of the student's field of enjoyment.

The beginning of this subject is often undertaken in the junior high school, not perhaps as an organized course, but as a school activity. The pupils of this age may well be permitted to attend one good play a year. In all probability their parents will take them to half a dozen poor plays and to dozens of picture-shows. There will well up in the adolescent a desire to act on the stage, and mass action will be wholesome and good for such young folks. A warning should be uttered against choosing a "star" or "leading part" from among very young pupils: their heads are so easily "turned" that there is danger of ruining the boy or girl for any more prosaic work.

(e) *History and Geography*. From one point of view history and geography may be regarded as cultural subjects. One who learns in school to love the movement of events, descriptions of many lands, and all their attendant concomitants, will have a source of great enjoyment when he grows to adulthood. These joys will not consist entirely in reading history and geography, but in travel, in collecting local historical material, in constructing and reading maps, in visiting industrial plants, and in learning the methods of producing from the soil in places where he happens to sojourn.

(f) *Sciences*. All busy men and women have their avocations which they love and enjoy. Many an office-man finds rest and pleasure in pursuing at home some scientific investigation. It may be chemical experiments, collecting flowers, stuffing birds, inventing

mechanical devices, classifying geologic specimens, or testing building materials. It is to provide men and women with such enjoyable avocations that many culture subjects are taught in school. In this sense the sciences may be regarded as culture subjects.

(g) *Manual Training*. What has been said of the sciences may be said of what is taught under the broad term of manual training. Dentists worn out with the tedious day's work find recreation at evening in say, wood-work; physicians, in metal working; lawyers, in electricity; teachers, in basketry, plastering, gas engine construction and repair. In this sense manual training is a culture subject, and, in passing, it may be said that more boys will use it as an avocation than as a vocation.

**4. Vocational Subjects.** For the purpose of this discussion we define a vocational subject as one that is taught chiefly for its contribution to making a student fit for doing the work of an occupation, and is pursued by the student with the same aim. Algebra is not for the mass of children a vocational subject because its main *raison d'être* in school is not to prepare the youth for engineering (the only occupation in which algebra could be used). Stenography is a vocational subject because the main reason for teaching it is to prepare the pupil for the gainful occupation of a stenographer.

The main vocational lines teachable in the junior high school are homemaking, dressmaking, agriculture, the commercial occupations, and the trades of the artisan. It is not claimed that any one of these occupational courses can be completed in the three years of this school or at the tender age of early adolescence. A good beginning can be made, however—a beginning that will materially shorten the period of apprenticeship or that will lay a good foundation for a finishing course in the same line in the senior high school-junior college.

(a) *Homemaking.* There have been many objections to the boys learning an occupation in the junior high school, the chief being that it forces the boy to choose at too early an age. This objection cannot be levied against homemaking for girls. Such a large proportion of girls become homemakers that those who do not may be disregarded as being a negligible quantity. No parent could object to his daughter's learning the household arts. It is therefore put first in the list of vocational subjects.

The home-making branches usually given to early adolescent girls are cooking and sewing. These subjects have a well standardized content and need not be discussed in full in this connection. The chief problem is where to place them in the three-year course. In high school sewing is frequently taught in the ninth and cooking in the tenth grade. In some schools the two courses are taught through the two years but on alternate days. It may with assurance be stated, then, that these two subjects should be taught in the last two years of the junior high school, whether it has a three or a four year curriculum.

(b) *Dressmaking.* Only the very beginnings of a course in dressmaking can be given in junior high school. It would be taught under the name of sewing. No differentiation need be made in sewing as a branch of the general vocational course of home-making from sewing as part of a dressmaking course.

(c) *Agriculture.* While agriculture should be taught as a science, and should be adapted somewhat to a class of students who do not have farming in mind as an occupation, its chief *raison d'être* in a public school curriculum is laying the foundation for vocational agriculture in the senior high school or elsewhere. A valuable product of the course is the vocational guidance result. That is, the course may open to the boy such an enchanting vista

in soil cultivation that he may be led to select agriculture as his life-occupation.

Elementary agriculture should make use of a laboratory and propagation house. The pupils must see plants germinate and grow. This objective teaching is especially desirable with pupils of junior high school age. The preparation of the soil, the propagation of plants, the cultivation, irrigation, and enrichment of the ground—these are elements of vocational training par excellence. Computation of the costs and profits of farming is also a valuable aid to occupational training as well as to vocational guidance.

(d) *Commercial vocations* include a large number of occupations, only a few of which can be taught directly in the junior high school. The most successful beginnings can be made in preparation for the vocations of stenographer, typist, bookkeeper, clerk, and merchant. The best vocational results can be obtained where the pupil puts in part of the day in the practical application to business of the principles and facts learned in the school-room. But, the courses are usually planned with the idea of the work being continued by the student in the senior high school. In many cases, however, a finishing commercial course will have to be planned to fill the needs of young people who have to go to work at fifteen or sixteen years of age.

In the regular curriculum provision may be made for the pupil's taking household accounts in the first year, elementary bookkeeping in the second year, and business accounts in the third year. A more conventional course would give commercial arithmetic in the first year and bookkeeping in the second and third years. Of course the courses in commercial work would be elective.

Typing is a very attractive subject to young people. It may be advisable for all the pupils to take lessons on

the typewriter until they can all write with ease and rapidity. This sort of work can be done in odd hours and before and after school. But as a vocational course, it must be pursued by the pupil with greater avidity and with more serious purpose. Accuracy and speed must be attained; great skill in variety of work must be thoroughly understood. These results cannot be secured in less than three semesters' work of at least sixty minutes per day. Ordinarily, the first three semesters of the junior high school course would be the time for typing.

Shorthand appeals to the adolescent. There is great practical utility in the subject. There is a possibility of doing all our writing with pencil in the shorthand code: it would save time and paper. As a vocational subject it is of great importance. Commercial accuracy, speed, and readability cannot be acquired in less than three semesters of one hundred and twenty minutes per day. If the pupil is going into employment after completing junior high school, he should take his stenography during the last three semesters that he is in school. If the pupil is going to senior high school, his intensive study of shorthand had best be delayed until the last year of that school.

The principles of clerical work may be learned in connection with bookkeeping, typing, stenography; pupils may get practice in clerical work through working in the principal's office, and in connection with student body finance and school records. Business principles and practice may be gotten in the same manner, and in the management of student affairs, especially of a co-operative book and supplies store, or of a cafeteria. Work in stores or in the management of a paper route gives some practice in business and clerical work, and is worthy of encouragement if it does not interfere with regular school work.



(e) *Artisan's trades* may be begun in the junior high school in a small way, especially shoemaking, cobbling, plastering, paper-hanging, building, carpentry, cabinet-making, glove-making, corset-making, concrete-mixing, mat-weaving, basketry, pottery, book-binding, printing, tinning, machine-repairing, blasksmithy, plumbing, electric-wiring, sign-painting, upholstering, barbering, "practical"-nursing, laundering, housekeeping, and manicuring. The beginnings of these vocational courses can be gotten in connection with the regular courses described in this and the preceding chapter.

## CHAPTER VII

### A SYNTHESIZED PROGRAM OF PROGRESSIVE PRINCIPLES

It is proposed in this chapter to bring together into a single program the most progressive features of junior high school curricular and extra-curricular practices found anywhere. This will be a picture of what might be in actual existence in any junior high school of the future. It seems to embody the concrete realization of the theoretical objectives of secondary education at the mixed adolescent age. It is posited upon the senior high school's taking care of all college entrance requirements and the elementary school's giving a satisfactory mastery of the fundamental processes.

It is generally recognized that the educative process must include habit-and-character-forming activities, and that these activities shall be closely related to the technical studies of the school. The project has come to express the best ideas of educators in putting into practice the knowledge acquired by instruction and study. The project has received its most active support from officers and teachers engaged in vocational education in the Smith-Hughes work, in connection with which it found its first country-wide promulgation. It is now fairly well agreed that the project can function as a method in physical education, social-civic education and general cultural education just as well as it has in vocational education. In the new junior high school, therefore, the project method may be placed at the core.

The project method as practiced by vocational teachers will be considered as the accepted plan. This calls for instruction in the *technical* facts and skills of vocation, society, health and sanitation, and general culture. This teaching might occupy one-half of the school day. It may be done in assembled classes, by individuals or groups, or otherwise. It may be done under the school roof, or possibly out on the project at the precise time in which the occasion or need for instruction arises. The plan outlined here will be arranged in two phases and, for convenience of treatment, as if one phase were to occupy the forenoon, and the other phase the afternoon. Under the first phase will be listed the knowledge acquired from book, library, laboratory, recitation, lecture, discussion, demonstration, inspectional visits. Under the second phase will be noted the *practice* or application of the knowledge acquired. As far as possible the practice should be in a natural setting: shop, office, athletic field, farm, swimming pool, kitchen, work-room, street, home, club-room, conference-room, church, public library, art gallery, theatre, etc.

Another matter to be noted as being of the very essence of the progressive school is the use of the scientific approach. Reference is made not to the teacher's method so much as the pupil's method of attacking every problem. The open mind, looking facts squarely in the face, following facts wherever they lead, questioning dogma and unsupported statements, distinguishing between well-known and generally accepted facts on the one hand and statements requiring proof on the other hand, these are some of the features of the scientific method. It is, of course, assumed that the scientific method may be applied to the study of vocations and economics, social-civics, health and physical development, and cultural subjects of all kinds as well as to the

highly specialized field of the sciences of biology, physics, and chemistry. The technique of teaching pupils to attack problems scientifically has been best developed by teachers of the pure sciences. That technique has been successfully copied in the teaching of household sciences, shop-work, and agriculture. It cannot be doubted that the same methods are successfully applied to the teaching of the social sciences, physical health and development, and the appreciation of culture. Without robbing teachers of biological and physical sciences of the credit of originating the technique of teaching pupils scientific method and precision, one can, nevertheless, find ample evidence of science being taught in classes in manual training, clerical work, language, hygiene, sanitation, art, music, and even the studies in appreciation of literature, music, art, craftsmanship, and nature. Science then is to be taught in junior high school not as a separate subject but through economic (prevocational) education, social-civic education, physical education, and cultural education.

What has been said of science applies in a general way to mathematics. The fundamental processes of arithmetic have been mastered in the elementary school. The junior high school curriculum synthesized in this chapter has no place for mathematics as a separate and distinct subject. Mathematical computations are to be taught in connection with Economic, Social-civic, Physical, and Cultural subjects. Such calculations will consist largely in the practice of facts learned in arithmetic; but some entirely new mathematics will be taught, such as algebraic and geometric principles in connection with shop-economics, mechanical drawing, and the exploration of certain technical occupations. Other instances will appear in the outlines that follow.

Even English disappears as a separate subject. As literature it appears in Cultural Education. As compo-

sition, spelling, and writing, it appears in Economic Education in connection with the exploration of literary occupations and clerical occupations. Social-civic Education is all shot through and through with vocabulary acquisition, conversation, public address, debate, and silent reading.

**1. Economic Education in Junior High School: Vocational Exploration.** There is at hand a scarcity of printed material bearing on vocational exploratory courses as they are actually worked out in practice. The outlines given below, though they are descriptions of work actually done somewhere, must be taken as purely suggestive for teachers who may have the initiative and administrative ability to adapt them by experimental processes to daily practice. Standardization of these exploratory courses is not to be expected until wide and thorough experimentation has been carried on.

In the Alabama plan, ten courses of nine weeks each have been worked out. The instruction to school authorities runs as follows:

The courses should be divided about equally into two parts: First, conferences, exercises, reports, discussions, excursions, interviews, job analysis, individual analysis and any other methods which function in clearing up all problems surrounding the immediate or closely allied occupation. Second, actual project work, including farm, shop, or elementary skill phases of the subject.<sup>1</sup>

The following ten courses have been planned:

- (1) Agriculture—The business of farming and study of the care of plants.
- (2) Agriculture—The business of farming and study of the care of animals.

<sup>1</sup> Occupational Studies for Boys, Department of Education, State of Alabama, November 1, 1924.



- (3) Building Trades—First course in woodwork.
- (4) Building Trades—Second course in woodwork.
- (5) Building Trades—Work in concrete.
- (6) Mechanical Trades—Electricity.
- (7) Mechanical Trades—Auto mechanics.
- (8) Metal Work—Forging.
- (9) Sheet Metal Work.
- (10) Drafting.

Only six of these courses are offered to the boys of any particular junior high school. Presumably all the boys are required to take the six courses, which occupy the time of the second semester of Grade 7 and both semesters of Grade 8.

In class the technical phases of Course One should be begun (let us say) in the fall. Taking the production of corn as a type study the following topics would form the content of the course: General information concerning the crop; selection of seed, harvesting the crop, storing the crop; weevil injury; the corn plant; types and varieties; soils and fertilizers; preparation of the soil; cultivation. The project phase might accompany the technical lessons and scattered through the year, beginning in the fall and continuing through until the next summer. In such a case the plant-agricultural course might be given (let us say) on every Friday throughout the year. Building Trades (one course) might be given on Monday. This group of pupils will complete these two type occupations in the two semesters corresponding to 7A and 8B grades. In 8A this group might take a course in mechanical trades.

The project-work for Plant Agriculture (type corn-production) is described by the Alabama bulletin as follows:

During the seasonal lessons given in the fall and winter, field trips should be taken by the pupils, seed corn selected in the field,

treated for weevils, and stored as a laboratory practice for study purposes in the spring.

The land to be cultivated should be sown to inoculated vetch seed, the class having inoculated the seed. The class should turn under the vetch in the spring as a green manuring crop. Fertilizers should be compounded and the soil should be prepared for planting. All the work in the cultivation of the crop should be done by the pupil. A careful study should be made of corn and other cereal crops.

It is presumed that the corn-production course would be especially appropriate in a territory in which corn is the chief, or at least an important, agricultural crop. One may deduce from the bulletin, however, that it is believed by the framers of this plan that studying corn-production and carrying on a corn-producing project for a year would expose a boy to farming to such an extent as to give somewhat reliable evidence, first to the boy as to whether he would like farming, and second to the teacher as to whether the boy might have the characteristics for success as a farmer.

A substitute for corn-production is the try-out course in market and truck gardening. This is given the modest title of "Home Garden" type. It is carried on in Alabama after the fashion of the corn-production course. The technical or class-room work embraces the following subjects: What a home garden is; value of a garden; where to locate the garden; the garden plan; kinds of vegetables to grow in home garden, market garden, and truck garden; garden seeds; the soil; aids to early planting; diseases and pests; canning vegetables; storing vegetables; how to keep records of all items of cost and income.

The Alabama bulletin describes the project phase of this try-out course in these words:

Early in the fall the pupil should begin to make plans for the home garden the following summer. The soil should be studied

carefully. This can be done at school to some extent by using in the laboratory samples of the types of soil found in the home garden. Drainage, organic matter, lime, garden crop rotation, etc., should all be worked out on a practical basis in their relation to the needs of the home garden. Make the garden plan; procure and test seed; study plant diseases and pests and preventive and control measures; make collection of insects; make hot beds, cold frames, seed boxes, if these are to be used.

This study should be completed by the time the ground is in condition to be worked in the spring. If individual garden projects are undertaken and school has not closed by gardening time, arrangements should be made whereby the pupil could be excused from school one or two afternoons each week to work in his garden.

The Alabama try-out courses in Building Trades and in Mechanical Trades follow essentially the same plan as the one outlined above for agriculture. They may be epitomized thus:

Building Trades: Laying out tools, squaring up stock to give dimensions; information about trees and woods; sawing; information about lumbering and milling; boring tools; fastening with nails and screws; assembling; finishing wood. The projects consist of using the laying out tools, squaring up a board to give dimensions, recognizing common trees and common woods and knowing their uses, sawing, finishing a piece of wood, boring holes with brace and bit, using a hand drill, using a hammer and nail set, using a screwdriver, assembling a piece of work, and visiting lumber yards and sawmills.

Mechanical Trades, using auto mechanics as the type: wheels and tires; springs; frames; front axle; rear axle; engines; lubrication; carburation; ignition; starting and lighting; storage batteries; transmission; clutches; steering gear; chassis lubrication; bodies; driving; trouble-shooting. The projects are the recognition of parts and the doing of such tasks as driving, lubricating, locating trouble, and putting together certain parts.

In his circular letter of October 10, 1925, State Secondary School Commissioner A. C. Olney of California, gives an outline of exploratory courses arranged in short units as follows:

Seventh grade: Woodwork (10 weeks), Painting and polishing (5), Plastering (1), Bricklaying (2), Concrete (2), Plumbing (10), Gas-fitting (2), Sheet Metal (5), Locks (3).

Eighth grade: Drawing (10), Metal work (10), Electricity (20).

Ninth grade: Auto (20), Shoe repair (2), Upholstering (2), Heating—steam and air (2), Forging (2), Battery (storage) (4), Radio (8).

The following outline of a try-out course of seven units of exploration of an equal number of literary occupations is offered as a suggestion of what might be accomplished in this line. In its present form it was tried in a Seattle ninth grade several years ago. No attempt has since been made to improve it. While it was constructed to fit the conditions of a regular high school program of 40-minute daily recitations with definite limitations of time for project and preparation, it may well be presumed that the course could be much better done on the plan proposed in the earlier part of this chapter. In such a plan, the class might meet at 1:00 P.M. for fifteen or twenty minutes of inspiring direction, after which the pupils in two's would scatter out to their projects in case of news gathering, not coming together again until the next morning when a 2-hour period might be given to assembling work in the newspaper.

*Reporting.* With newspapers in hands of pupils, the class studies the various parts of a modern daily. The teacher describes the work of news-gathering, editing the news, news writing, and general assembling into newspaper form. Visit to a newspaper establishment. Division of the class into staffs for the city department, society, shipping, sports, etc. Discussion of method. The projects embrace actual gathering of news, writing up the stories, editing the news, and making up a dummy form. Practice in editing the news stories of other pupils.

*Magazine Writing.* Samples of magazines in the hands of the pupils, the class studies story, politico-social, mixed, and other magazines. Typical numbers of *Youths Companion*, *Saturday Evening Post*, *McCall's*, *Sunday School magazines*, magazine

sections of daily newspapers, Atlantic Monthly, Harpers, the Forum, the Independent, Literary Digest, various trade journals and house organs, etc., Practice in rewriting published stories and articles; practice in writing simple original stories and articles.

*Dramatic Reading and Acting.* Reading good selections and short plays by the teacher. Reading in concert. Learn a selection. Recite it with book in hand for reference. Assign parts in several plays. Parts read by pupils. Memorize, rehearsed. Dress rehearsal. Staged before audience. Attend one good play of the legitimate stage.

*Library Work.* Preliminary discussion. Organized visit to city library. Study a book: author, title, subject-matter, publisher. Practice cutting leaves, covering book, mending leaves. Study decimal classification system. Practice finding books from the card description. Practice cataloging books. Organize a student staff, each student "sitting in" with the corresponding member on the city library staff.

*Law Practice.* Preliminary discussion. Visit to courtroom. Assignment of debate questions. Collecting evidence from books, home, observation. Staging debate. Organize a trial such as, John Doe vs. The School Board *in re* injury to health sustained by attendance in classroom not properly ventilated. Collect testimony from pupils, secure expert opinion on ventilating system. Stage trial with judge, jury, attorneys, witnesses.

*Preaching.* Read about several great preachers. Discuss the make-up of a sermon. Have pupils report fully on a Sunday morning sermon and a Sunday evening address. Have pupils analyze a text, then work up a short sermon. Have pupils work out a short talk to a young people's association on moral or religious lines. Have them work out an explanation of their religion to an imaginary audience of Chinese who know nothing of our beliefs.

*Teaching.* Discuss the profession of teaching. Have pupils note and report to class the development of a lesson by some teacher. Discuss lesson planning, supervision of study, supervision of laboratory and shop exercises, class-recitation, written reviews and reports, grading systems. Each pupil should have at least one opportunity to conduct some teaching work—possibly for fifteen minutes. He should be given opportunity to prepare the plan, assign the lesson, have his practice pupils study the lesson, hold the recitation, etc., as would be called for by the type of teaching he was expected to do.



In the above try-outs Reporting and Teaching might well occupy two months each, while the others might be done in one month each. The seven units would cover a full year.

If the junior high school curriculum includes the tenth grade, vocational exploration might be arranged as follows: Seventh grade, agricultural pursuits; eighth grade, industrial or clerical occupations; ninth grade, commercial and clerical, or industrial occupations; tenth grade, literary or scientific professions.

## **2. Social-civic Education in Junior High School.**

Social-civic education is conceived of as including training for proper and effective conduct as a member of society, especially as a citizen of the state, home, community and the more common social groups. The school is an agency created and supported by society, a principal purpose of which is fitting young people for participation in society in the maintenance and improvement of established institutions and agencies making for social solidarity and progress. In America and in recent times, society has selected the state as the organization for creating, supporting, and controlling the school. But society does not intend that the state shall confine the work of the school to training for citizenship in the state alone. It is recognized by students of education and sociology that the state must direct the school to train for membership in all society's institutions and agencies. Otherwise, these other institutions would have to set up their own schools, bidding against the state for the time and loyalty of the youth. Society is as much interested in the church, the home, and the community, as it is in the state. Therefore, it is its purpose that the one school shall educate youth for all its institutions.

The most tangible social groups may be listed as follows: (1) the home (or family); (2) the neighborhood; (3) the community; (4) the town and the township; (5) the city and the county; (6) the state; (7) the nation; (8) the church; (9) the lodge; (10) the club; (11) the labor union; (12) the professional or business association; (13) the political party; (14) the group of employees working together in office, store, factory, shop, bank, or farm; (15) certain semi-permanent, semi-casual groups, such as a social class, an historical association, Old Settlers group, etc; and (16) the school. Few of these social institutions maintain apprentice schemes or training schools for preparing youth to become members. A member must pick up points of good membership after he has entered the group. A large number of members never become good citizens of the group to which they ostensibly belong. Many others drop out because they disagree with the tenets of the group or because they cannot understand what membership means. In that way few of us have had any definite training for membership in a political party, national or local, in a lodge, a club, or even a church.

Now, it is precisely this apprenticeship training for citizenship in society's group activities that is expected of the school. But responsibility for carrying on this type of civic education has seldom been definitely located within the school. Tendencies have been to expect it of the history teachers or of the English department. Recently it has been shifted to playground instructors or to sponsors for extra-curricular activities. Extra-curricular teams, clubs, and gatherings have functioned to this purpose. Some schools have lent their support to non-school organizations, such as the Boy Scouts, Camp-fire Girls, church organizations, municipal playgrounds and camps, and Y.M.C.A. or similar associations.

But progressive educators are beginning to insist that social-civic practice training is the main business of the school, and should not be relegated to the periphery of school life. It should be the core, an essential part of the curriculum. For examples of its being carried on in this way one must turn to what is being done in the more venturesome junior high schools. Here there is a definite linking up the practice citizenship work with the knowledge-instruction. There must be study of the social activities of adult society, and practical application of the information gained to actual participation in school-controlled or school-supervised group life.

The methods and plans followed in the Holmes Junior High School of Philadelphia is perhaps typical of the best practices in social education.<sup>1</sup> The arrangement is somewhat along the lines described above. There is the classroom instruction, which, however, follows tradition perhaps too closely. Then there are three other factors: the personal influence of the home-room counselor; cooperative guidance by the entire faculty; and aid contributed by home and community. The specific agencies through which the counselor and faculty educate the pupil in social-civic activities are the clubs and societies of the school. Outside of school the young citizen is required to participate in various community projects.

The technical or instructional course includes history, community civics, vocational civics, and economic civics. Thomas-Tindal and Myers in their interesting book on *Junior High School Life*, give type exercises carried on at their school under the following heads: Students' Round Table Discussions (participants make

<sup>1</sup> No one interested in social-civic education should fail to read Thomas-Tindal and Myers' *Junior High School Life*, which describes this plan in detail.

regular preparation on assigned topics); Classroom Debates; Classroom Two-Minute Speeches; Open Forums (bringing in outside speakers, but encouraging pupils to ask questions and participate in discussions); Oral and Written English Compositions; and Dramatizations. One illustration for each of these six phases of instruction will serve. First, "Every good citizen owes it to his community to prevent waste of water, light, fuel, power, etc," is a typical topic for round table discussion. Then, "Resolved, That the school plant should be used as a community center." Next, "The duty of patronizing local merchants and community banks." In the forum meeting, a local postmaster addresses the pupils on ways in which citizens may aid the government. For a composition—oral or written—such a topic as, "Specific ways in which a vigilant school safety patrol can reenforce the work of the municipal authorities." Finally, original or published playlets for Fire Prevention Week (etc.) are dramatized; or pageants are held.

The above social-civic instruction may be given in a class in history, civics, or English, or elsewhere.

The practice or project work at the Holmes school consists quite largely (but by no means altogether) in participation in school clubs and student government. There are the so-called civic clubs,—that is, those sponsored by the teachers of the social sciences; and then there are allied clubs,—those sponsored by other departments, but giving practice in social or group activities.

The principal civic clubs are the Success Club, Public Speaking Club, Debate Club, and particularly the Civic Publicity, Historic Research, Contemporary, Historical Pilgrimage, and Inventors Clubs. Clubs closely allied to these in purpose and objectives are Reporters, Dramatic, Story Hour, Library, Practical Household Chemistry, Ernest Thompson Seton, Know Your City, Travel,

National Geographic, Chess, School Orchestra, School Equipment, Luncheon, Little Mothers, Dancing, Hiking, Leaders, Etiquette, and Willing Workers clubs. Twenty or thirty other clubs have important bearing on the application to real situations of the principles of social-civic behavior apprehended in the classroom lessons in the social sciences.

It would seem that such clubs as the following might well be established, serving the purpose of social training perhaps even better than any of the above: Junior Church, Junior Labor Union, Junior Lodge, Junior Service Club, Junior Neighborhood, Junior Community, School Chamber of Commerce, and Home Betterment.

Besides the club as an institution through which to give practice in social-civic activities, the Holmes school provides for pupil participation in student government. There are two organizations: the Students Organization and the Industrious Citizens Union. There seems to be considerable overlapping in the purposes and functions of these two organizations, and it is probable that the first will gradually be merged into the second.

The Students Organization carries out the following activities: Supervision of tardiness; stimulating regular attendance; emphasizing school virtues; lunch-room corridor guard; management of assembly programs; giving emergency service, such as taking care of class when teacher is temporarily engaged elsewhere; service as ushers and guides; cheer leading; financial cooperation, such as cooperating with the faculty in raising special funds. The membership in this organization is limited to one representative elected from each classroom.

The Industrious Citizens Union is a much more extensive and ambitious project. A description of the structure of the organization reads like a city charter. There are five departments, and within each from one to



three bureaus. The work done by these bureaus is chiefly administrative, though there is some legislative, some judicial, some policy-forming, and some instructional—all done by pupils. These pupils are selected from the great mass of the school by election—eight or nine from each home-room.

The Department of Administration holds a monthly council meeting at which the delegates (one from each home-room) offer suggestions for the management of the Union. This department also furthers campaigns for good health, sanitation and fire prevention, by means of organized programs of publicity; and promotes campaigns for sustaining interest in problems of school civics by means of song contests, art contests, play-writing contests, etc. It awards and distributes pins, buttons, badges, and certificates of honorable mention.

The Department of Public Works (composed of one person chosen from each home-room) contains three bureaus. The Bureau of Personal Property aims to raise the standard of school opinion on property rights, dissuades pupils from bringing to school valuables that would tempt the light fingered, and uses other means to stamp out theft and destruction and waste. The Bureau of School Property carries on a similar campaign for the protection of school property, actually inspects the buildings and grounds to find defects and make improvements, and conserves school books and supplies in every way practicable. The Bureau of Neighborhood Property provides a patrol of the neighborhood before and after school, and influences pupil opinion concerning proper attitudes toward the community lights, sidewalks, trees and the like, and toward property privately owned.

The Department of Public Safety contains three bureaus. The Bureau of Traffic selects students to regulate traffic in and outside the school buildings. The

Bureau of Fire zones the school, prepares blue-print maps of the rooms, halls and fire escapes, and drills its agents in leading pupils to the nearest exits in time of fire. Public opinion is greatly influenced by these two bureaus by talks, plays, posters, and films. The Bureau of Law and Order campaigns against boisterousness, discourtesy, profanity, and other vices. Some effort is made to restrain persons from committing nuisances, and to detect the guilty.

The Department of Sanitation directs its efforts toward keeping the school clean, well-ventilated and tidy. Its efforts are directed largely to the formation of proper public opinions on these matters.

The Department of Social Welfare has three bureaus. The Bureau of Decoration prepares the buildings and grounds for special social occasions. The Bureau of Publicity utilizes the bulletin boards and the school papers for civic publicity purposes. The Bureau of Social Service gives valuable service to new entrants, to absentees, to those who are ill, to teachers, and in emergency to others.

In addition to daily civic practice in student-body organizations and in clubs, some practice of social-civic habits is gotten by school-supervised and self-directed pupil participation in community activities. Presumably this includes home, neighborhoods, parks, libraries, boy-scouts, campfire girls, and other organizations. Such project-training tends strongly to fix the habits originated in school and to lead the pupil without a break of continuity into the complexities of the adult social world.

**3. Physical Education.** The Commission on the Reorganization of Secondary Education of the National

Education Association, have given the following phases of health education.<sup>1</sup>

Health instruction

Inculcation of health habits

Physical activities

Cooperation with home and community in safe-guarding and promoting health interests.

Doctor Cubberley gives the following as the phases of a school program of health development.

1. Play and Physical Education.
2. School sanitation.
3. Child hygiene.
4. Health teaching, including first-aid work.
5. Health supervision, including the work of the school nurse.<sup>2</sup>

It would seem from the above and other sources that there are two distinct though closely interrelated fields of work. First, there is the technical or instructional phase, which undoubtedly should include: (1) hygiene, or care of the body; (2) sanitary science or care of the environment to promote health and prevent disease and accidents; (3) first-aid to self and others; (4) care of others to prevent sickness or to aid convalescence, including dietary; (5) the rules and methods used in a wide variety of games, plays, exercises, and health activities.

Second, there is the practice or project phase of the work of health education, which includes, (1) the carrying out in school and at home of health habits; (2) taking part in keeping the school free from unhealthful conditions, such as submitting to personal inspection by nurse, physician and dentist, and taking part in inspection and clean up of the school building; (3) practice in going through the acts of first aid; (4) caring at home for

<sup>1</sup> Cardinal Principles of Secondary Education.

<sup>2</sup> Cubberley, Elwood P., *The Principal and his School*, p. 223.

family needs, preparing meals, waiting on the sick, conducting a vacation trip, including camp-cooking; (5) participating in setting-up exercises, games, and other athletic activities.

It will be realized that the customary two hours per week will not be sufficient for such a plan of physical education. Two hours might be sufficient for the technical phase of the work. The practice or project phase of the work could scarcely be done in less than four hours per week under the supervision of teachers. Other play and work (including Boy Scout activity, home chores, etc.,) might well be reported to the teacher for record and approval.

At present much more attention in school seems to be given to physical games and plays than to other practice of health and sanitary habits, and, it would seem, almost to the exclusion of instruction in hygiene and health-promotion.

A bulletin of the Federal Bureau of Education<sup>1</sup> suggests that the plays, games and activities carried on under direction of a teacher, and during school hours occupy not less than 120 minutes per week. If the school day be extended to five P.M., surely sixty minutes per day could be found for this work. Some of the activities suggested for junior high school are listed below:

<sup>1</sup> Suggestions for a Physical Education Program for Small Secondary Schools, Physical Education Series No. 3, U. S. Bureau of Education, 1923.

## GROUP GAMES

Boys	Mixed	Girls
Dodge ball	Three deep	Dodge ball
Circle ball	Circle ball	Circle ball
Black and white	Black and white	Call ball
Prisoner's base	Call ball	Fox and geese
Pom Pom pull away		Club snatch
Club snatch		Three deep
Whip tag		Black and white
Bull in the ring		Jump the shot
Jump the shot		Stealing sticks
Stealing sticks		
Fox and geese		
All run		
Three deep		

## TEAM GAMES AND ATHLETICS

Playground baseball	Volley ball	Playground ball
Volley ball	Relays	Volley ball
First ball	Tennis	Newcomb
Long base		End ball
Relays		Corner ball
Soccer		Relays
Hockey		Tennis
Handball		

## TRACK AND FIELD EVENTS

Dash (75 yards)	Dash (50 yards)
Potato race	Potato race
Baseball throw	All up
Running high jump	Relay race
Running broad jump	Basket ball throw
Relay races	Run and catch
Badge test events	Badge test events
Tug o'war	

## STUNTS AND COMBAT

Boys	
Window jumping	Leap frog
Indian wrestling	Tumbling
Barrel boxing	Pyramids



## GAMES AND TESTS (Noon)

## Boys

Quoits and horseshoes  
 Basketball goal shooting  
 Tests (pull up, push up, sit up)  
 Punting for accuracy  
 Batting for accuracy  
 Serving for accuracy  
 Putting for accuracy

## Girls

Goal shooting  
 Catch  
 Bean bag toss  
 Quoits  
 Archery  
 Tennis serving (for accuracy)  
 Golf putting (for accuracy)

Certain exercises, however, are condemned for girls by good authorities and others are regarded as doubtful. Thus Ayers, Williams and Wood in their book *Healthful Schools*<sup>1</sup>—for immature girls, condemned: Pole vaulting, Running more than 100 yards, Weight throwing. Doubtful:—Basketball, Field hockey. Safe:—Archery, Ball throwing, Broad and High Jump (not in competition), Climbing, Dancing, Horseback riding (cross saddle), Low hurdles, Paddling, Rowing, Running (not in intense competition), Skating, Swimming, Tennis and Walking. Especially beneficial and suitable:—Climbing, Dancing, Jumping, Running, Skating, Swimming, and Walking.

**4. Cultural Education.** By culture in this sense one means Racial Culture—a knowledge and appreciation of the significant arts and sciences accumulated by the race which are of interest to ourselves and which we wish to pass on to our descendants. Here figure literature, fine arts, music, architecture, the practical arts, drama; also, physical, biological and engineering science; and history, law, philosophy, astronomy, government economics, world geography, world current events, and occupationology. Many of the facts of race culture have a direct bearing on vocational, social-civic, and physical

<sup>1</sup> *Healthful Schools, How to Build, Equip, and Maintain them.* Houghton, Mifflin Co., 1918.

efficiency, and much is taught in connection with vocational, social-civic, and physical education. But there is so much left over after these lines of education have been completed that a fourth subject must exist for the specific purpose of training the youth into greater knowledge and appreciation of significant phases of our racial culture.

It is not to be expected that any one person can master all fields of the arts and sciences. But it is to be hoped that he can become quite thoroughly familiar with two or three and acquire a general knowledge and appreciation of eight or ten others. It is probably sound educational philosophy to leave the junior high school period to fairly wide exploration. If six semesters are included in this institution and two hours per day are open to this type of work, probably six year-units could be covered. A junior high school employing ten or more teachers could readily provide year-unit courses in the following: Literature, Painting and Drawing, Music and (or) Music Appreciation, Practical Arts, General Science, Biology, Algebra, Plane Geometry, American History, European History, World Geography, Government (of the United States, the state, the county, and the city). Household Science, Household Arts, and Current Events.

It will not be necessary to give examples of schools and curriculums making provision for cultural training as hundreds of junior high schools now carry on this type of work. Many schools not only give classroom instruction but also organize practice and project phases of the work. Thus, the Ben Blewett Junior High School of St. Louis has at least one club sponsored by the teacher of each cultural subject. It also provides for cooperation with public library, art galleries, museums, business houses, and industrial concerns in visitation and study. Points of interest in and about St. Louis are visited and thus through field trips the pupil is made familiar with local

history, local geography, municipal government, zoological and botanical history, and the industries of the community.

It remains to devise a program, or schedule, that would permit of dovetailing together all the various elements of this synthesized curriculum. The following must be regarded as purely suggestive:

## 9B Class

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:40-9:20	Literature (class <sup>1</sup> )	Lit. (cl.)	Lit. (cl.)	Lit. (cl.)	Lit. (cl.)
9:20-10:00	Phys. Ed. (Biology cl.)	Phys. Ed. (Biol. Lab.)	Phys. Ed. (Biol. cl.)	Phys. Ed. (Biol. Lab.)	Phys. Ed. (Biol. cl.)
10:00-10:40	Phys. Ed. (Hygiene cl.)	Phys. Ed. (Biol. Lab.)	Phys. Ed. (Sanit. cl.)	Phys. Ed. (Biol. Lab.)	Phys. Ed. (Hygiene cl.)
10:40-11:20	Social-Civics (cl.)	Soc. Civics (class)	Soc. Civics (class)	Soc. Civics (class)	Social Civics (class)
11:20-12:00	Voc. Ed. (class)	Voc. Ed. (class)	Voc. Ed. (cl.)	Voc. Ed. (cl.)	Voc. Ed. (cl.)
1:00-4:00	Voc. Ed. Project (gather news, etc.)	Soc. Civics Project (club)	Voc. Ed. Project (bldg. trds.)	Soc. Civics Project (neighborhood)	Cultural Project (field visit)
4:00-5:20	Phys. Ed. Project (games)	Phys. Ed. Project (games)	Phys. Ed. Project (sch. cleanup)	Phys. Ed. Project (games)	Phys. Ed. Project (games)
5:30-7:00	Soc. Civic Project (chores)	Soc. Civic Project (chores)	Nothing	Soc. Civic Project (chores)	Nothing
7:00-9:30	Culture Project (reading)	Culture Project (reading)	Culture Project (club)	Culture Project (reading)	Culture Project (theatre, lecture or musical)

<sup>1</sup> Wherever the word "class" appears, it is intended that it include recitation and especially study.

## CHAPTER VIII

### TEACHING IN JUNIOR HIGH SCHOOL

**1. Aims and Purposes.** In a most instructive book on methods of teaching in high school, Professor Parker, of the University of Chicago, gave as the ultimate aims of teaching in secondary schools the endowing of students with social efficiency, good will, and capacity for innocent enjoyment.<sup>1</sup> Social efficiency embraces economic, domestic, and civic efficiency. Putting it in another way, the aims of secondary education are efficiency, morality, and culture.

As the proximate or immediate aims of teaching in the junior high school, he suggests the following: (*a*) The acquisition of habits of industry; (*b*) the development of sense perception; (*c*) acquisition of motor skill; (*d*) health and physical development; (*e*) acquisition of valuable information; (*f*) development of the faculties of reasoning, retentiveness, alertness, and quickness; (*g*) acquisition of skill in expression; (*h*) the development of a liking for clean, wholesome pleasures; (*i*) and the endowment of boys and girls with a deep sense of the purposefulness of their lives. Some of these purposes of educating the young are best taught through certain subjects; others, through other subjects.

Before proceeding to a further discussion of methods of teaching the various subjects so as to accomplish the results given above, some attention must be given to

<sup>1</sup> Parker, S. C., *Teaching High School Subjects*, Ginn and Co., Boston, 1915.



the mechanics of teaching, which will be treated under the headings of the Teacher, the Classroom, and Textbooks.

**2. The Teacher.** The teacher, before beginning to teach, should get acquainted with himself, make an inventory of himself. He might address a questionnaire to himself, the questions running somewhat as follows:

Am I going to teach for the money there is in it?

Do I like adolescent boys and girls?

Do I understand adolescents? (If so, make a brief inventory of the principal physical and mental characteristics of (a) the adolescent boy, (b) the adolescent girl.) Do I really love to teach children?—or is it the subject, that I love to teach?

Do I simply know the subject-matter of the subject?—or do I appreciate the large, vital purpose of that subject?

Have I thought out what things touching the subject should be taught, and what omitted?

What should be the effect of my teaching of this subject upon the pupils of my class?

If all teachers teach this subject as I teach it, what will be the effect upon society and upon the human race?

Are my physical, mental, and moral qualities such as will set a good example for my pupils?

Am I familiar with a large enough number of methods of teaching that I can vary my teaching when I see that I am not getting right results?

The teacher should be able to answer all of these questions satisfactorily.

Then the teacher should have an eye to external appearances. He is to be before his class every day for several months; his appearance and actions will have a large effect upon his pupils. Dr. Hall cites a case of several brothers living in an interior town wanting to go to sea, one after the other. This desire was considered

unaccountable until it was learned that a picture of a fine ship at sea had hung in the bedroom of these boys during their years of adolescence. How much more will a human, living teacher effect those who look at him day after day?

The teacher in the junior high school might well take an inventory of his appearance by asking: Am I in as good health as I can be? Am I vigorous, active, alert? Do I keep my body well-groomed? Do I dress befittingly? Do my movements betray purposefulness? How do I act when I am unconscious of what I am doing? Do I have any odd or disgusting habits that bob up when I am off guard? Am I stiff and formal, or, am I informal and familiar? Do I act as if I am lazy, careless, slovenly, hot-tempered, sarcastic, conceited, humble, over-bearing? Do I act as if I would countenance cheating, flirting, inattention, slothfulness, familiarity? Am I noisy and blustering? Is my voice loud, harsh, whining, or lacking in strength? Do I hear and see perfectly? Do I show weariness readily? Do I display anger and irritability quickly? Does my lip curl in scorn without due provocation? Do my appearance and actions indicate that I have been beaten in the race of life?—or that I regard teaching as the most desirable of careers?

While the class will size up the teacher, the teacher must not neglect to size up his class, to know his pupils. Some teachers seem never to know but a few of their pupils. Even after several months' teaching them, they do not recognize the pupils outside of the class. It is highly desirable that a teacher should know each pupil, know the pupil's other activities, home influences, and standing with his associates. For purposes of this kind, a teacher could well afford to keep a private card system on which to note his impressions of the various pupils. In this way the teacher will come to focus his attention

upon the children more than upon the subject he is teaching. By noting the impressions, gradually the card will be filled out with valuable data. Teachers may then consult among themselves about the pupil, and compare each other's experiences. A principal could readily check up the teacher's attitude toward teaching by looking over the notes on the cards. Warning, however, must be offered against becoming too minute in analyzing the pupils. There is danger that the teacher will come to regard them as so many pawns upon the chessboard, will come to regard them as something apart from himself, detached, inhuman. The teacher must not become merely an experimenting psychologist; he must be warm in his sympathetic relation to his pupils.

The teacher must prepare lesson-plans. No matter how well a teacher may know his subject, he cannot afford to go before his class without knowing just what he wants to bring out in teaching the lesson before him. Each lesson must be a unit, must aim to accomplish some definite object. The lessons day by day must proceed toward some realizable goal; and both pupils and teachers must feel that they are making progress. In order that the pupils may realize that each day's work is a step toward the accomplishment of the whole task, the teacher must have the whole course mapped out. This course-mapping should be done before the term begins so that no time will be lost. If the teacher has never before taught the course, he should make a general plan at the beginning of the term, a more definite plan at the beginning of each week, and an exact outline each day. If this arrangement is carried out, it will not take more than fifteen or twenty minutes each day for the teacher to lay out the lesson. He will then have an abundance of time to assemble all the tools necessary for the success-

ful conduct of the recitation. Without such systematic preparation, the teacher's work is apt to be unsatisfactory.

**3. The Classroom.** The following matters connected with the classroom need careful attention: Size, ventilation, heating, light, seating, conveniences, inlet and exit, acoustics.

A small room where the pupils are cramped for space is an abomination; a large room with great distances and unused spaces is barn-like. Assuming the number in the class to be thirty, a room devoted to class recitation should have from 9000 to 12,000 cubic feet of space. An extremely high ceiling is not desirable; fifteen feet is high enough. Such a room would have from 600 to 800 square feet of floor space. This means a room approximately  $24 \times 25$  or  $25 \times 32$ . These dimensions may be regarded as the minimum and maximum. A shop-room for manual training of this size would accommodate about sixteen pupils at benches. A gymnasium for forty pupils should have floor space of at least 2160 square feet. A cooking room for twenty girls should contain at least 800 square feet of floor. A sewing room should be the size of a manual training shop. A classroom suited for laboratory demonstration or experiment should contain approximately 200 square feet of floor space more than the specification for classes.

Ventilation may be by forced circulation of air, driven by fans through air shafts. In such a case the in-take should be located where the air from outdoors may be secured in purity; should then be passed through a spray wash; heated; and driven by fans to the various rooms in sufficient volume completely to change the air of a room every fifteen minutes. The air currents should be tested and measured frequently so as to be sure that the ventilation is perfect. The bad air is forced by the pressure of in-coming air to pass out through a shaft rising to the

top of the building. To facilitate this rise, the bad-air shaft may run up through a larger shaft in whose outer chamber passes the hot smoke or fumes from the furnace.

The heating of a room may be done by the system described in the preceding paragraph. The washed air is heated by passing over a furnace-heated surface, or in a chamber-oven. The heating of air has a tendency to dry it; but the air is saturated with moisture when it passes through the spray wash. There are many other heating devices—steam, hot-water, gas-radiators, and electric radiators. They are said to be very satisfactory.

The lighting of a room is from windows, from sky-lights, from electric lamps, or from concealed lights. While the last is best for the eyes, it is probably impracticable for school lighting. Sky-lights should be used as the last resort. The lighting from windows must be carefully controlled. The windows should be placed all on one side of the room and at the pupils' left. It is better if no window is farther forward than the desks of the pupils in the front row. Cross-lights are to be absolutely prevented, also lights that the children have to face. Glaring lights are bad for the eyes of children. Dark green, brown, or yellow shades are best, depending somewhat upon the amount of light needed.

The seating is of considerable importance. If stationary desks are used, they should be adjustable so that each pupil may have his desk and seat at the proper height for him. The seats should be arranged in rows the long-way of the room. There should be considerable distance—at least seven feet—between the front desks and the front wall of the room. Better still, however, are the movable desks, that may be grouped in any way to serve the purpose of the recitation. They may be grouped close about the teacher's desk, or turned so as to give opportunity to see a demonstration at any part of the black-



board. They may even be removed from the room, giving space for physical culture, play, laboratory exercises, or other work.

The acoustic properties of a class-room must be carefully adjusted. Nothing is so productive of disorder, misunderstanding, and downright distress as poor acoustics. It should be that every child in the classroom may hear every word of the other pupils and of the teacher without the least straining. Of course, nothing can take the place of alert attention and interest. But a pupil cannot be expected to give close attention when he cannot hear well what is said. If the acoustics are now poor in the classroom, padding the walls or stretching wires from front to back of room will help matters. The teacher will do well to study his classroom, test the acoustics, and, if anything wrong is found, study the principles of the subject and apply the remedies.

Every recitation room, gymnasium, and study-room should be provided with conveniences suitable to the subjects taught. Shelves for books, cases for supplies, blackboards, globes, electric lights, wall-maps, suitable floors, closets, dictionary racks, teacher's desk, filing cases for papers, cards. If the room is not already provided with these and other necessary conveniences, the teacher should see to it that they are secured or make them himself. The teacher as well as the school will be judged by the business-like arrangement of the classroom. The very appearance of the room will be an important factor in the pupil's attitude toward the teacher and his own work.

Finally, a word should be said about the entrance-way into the room and the means of egress from the room. Each classroom should have two doors for convenience as well as for safety. Pupils should enter by one door and leave the room by the other. That door is best, however, that swings both in and out. The doors should

have automatic, noiseless closing devices. The doors should be kept locked when the teacher is out of the room; but a slit in the door for depositing papers, like a letter box, should be provided. The glass in doors should not be so transparent that persons walking in the halls will attract the attention of the class in the room.

It would be well if every teacher could be provided with a private study or consultation room adjoining his classroom. Such an office would give him privacy, and would permit pupils to consult with a teacher without attracting attention or disturbing others. Such an office would permit the teacher to work in the building after recitation hours when the janitor is sweeping his classroom.

**4. High School Textbooks Not Adapted to Junior High School.** Although a subject formerly pursued in the ninth grade may be more profitably placed in the seventh grade, the same textbook cannot to best advantage be used. As a matter of fact there is a maturing of mind and body that goes on with increase of age irrespective of the training they get in or out of school. This fact is all important when we come to consider the books through which we expect to teach the various subjects. The last few years have seen an appreciation of this fact in the large output of books adapted to small children from adult originals. Take the fairly complete story of Robinson Crusoe now written for boys of eight years of age. The original is hard reading for a mature mind; it was impossible to the youngster who would appreciate it most. Dozens of stories have recently been rendered into child language to the enrichment of our children's minds, to their enjoyment, and, incidentally, to the financial profit of the editor that did the rewriting.

On the other hand there are many textbooks and classics used in high school that are too simple to exercise properly the mental powers of such mature boys and

girls. We all know of several that have actually been finding their way down the grades toward the place where they belong. We have in mind such classics as *Gulliver's Travels*, *Snow Bound*, and *Last of the Mohicans*. These were formerly taught in the tenth grade, and then found their way into the ninth. They were gradually dropped from first one, then another high school curriculum, only to bob up in the eighth grade. They are now beginning to find a place in the first year of the intermediate school. We know of one beginner's Latin text, one English composition book, one textbooks in economics, and one in general science that were written for certain grades in the high school. They have all been dropped down a grade or two, or have been discarded as too immature.

It is not sufficient that the language of textbooks now in use be simplified for the junior high schools. Simple language, simple style, yes—but these new books must be written from a different angle with an entirely different conception. Again we must apply the standard of educating the boy and the girl, not diffusing knowledge through the world. Let us illustrate:

We have before us a textbook on ancient history—one of the least offensive, so we were told by the agent. In the few pages devoted to Greece, we find the names of ninety-one men and women. The time to be devoted to the subject of Greece is intended to be about thirty lessons. On an average three new persons appear each day in the study as it proceeds. Here are a few of the persons whose names are mentioned and whose deeds are described: Cimon, Alcibiades, Gylippus, Pelopidas, Epaminondes, Aratus, Zeuxis, Parrhasius, Thales, Zeno, and Hippocrates. There are many others whose names might profitably be omitted. Many school boys for the excitement of the game would try to retain every name

and every deed. Their memories might be stored with more profitable information. These are husks that inflate, but do not develop, the mental powers of youth.

Not only must the child to be trained occupy the center of the stage, but it is the early adolescent child who is beginning to develop an ego, who is beginning to feel that he has a big purpose in living, who is restless to try his strength on something worth while, whose emotions are sensitive to the appeal of heroic lives that have affected the progress of the world. The right kind of history and literature would book big in the life of the adolescent boy or girl. But bare facts are not the things wanted. They want episodes with strong coloring and of great consequence. There must be a hero to give reality to it all.

Then there are textbooks on science, pure and applied. At this age it had better be reversed. There are a thousand things that are beginning to have a new interest to the pupils. Curiosity is strong. Let science reveal to them the relationship of man to nature and to the race; the relationship of nature to man and to the race. The so-called practical things will appeal strongly to the early adolescent. In the abstract he cares little for the winds and wind currents. But wind currents that affect the location of sea-ports, irrigation dams, and sailing-vessel routes—such wind currents will make a strong appeal to him. Let him proceed from the concrete to the abstract, from the effect to the cause. This is the point of view text writers might well have in writing textbooks.

Algebra and geometry must be justified to the adolescent boy or girl from another standpoint. In the first place these courses use symbolic language, and adolescents are thought to be fond of secret signs. In the second place, these branches of mathematics give promise of new, direct and easier ways of solving problems. This

side of the subject must be made much of. They are practical subjects for the mechanic, draughtsman, engineer, architect, artist, chemist, electrician. Text-books must not fail to appeal to the adolescent's growing demand for real life; and yet they can and should make an appeal to the game and puzzle interests of youth.

### 5. Certain Qualities to Be Developed in Pupils.

(a) *Acquisition of Habits of Industry.* This purpose of teaching is realizable through every subject, but its success depends very much upon the teacher. A fine habit to acquire is one of working with full steam ahead when working, and playing hard when playing. The teacher will do well to observe the following points in teaching pupils to be industrious: The teacher must be a fine example of industriousness himself; there must be a regular, fixed time for the pupil's reciting and studying; a definite assignment of a lesson must be made so that the pupil will waste no time in getting to work; a limited time should be allowed the pupil for doing a task; the pupil should be taught how to study and work so as to save time; the pupil should be compelled to work when he does not feel like it, for the feeling of laziness will soon pass away and be forgotten, and the habit of resisting one's lazy impulses will remain as an abiding blessing; pupils should be required to carry through a program once undertaken. If a pupil be permitted to follow his own whim, work when the spirit moves him, procrastinate, dissipate his energies, mope over his tasks, he will soon be beyond easy redemption.

(b) *The development of sense perception* is best secured through music, art, manual training, sewing, craft-work, typing, and mensuration. In these subjects great stress should be placed upon keenness, accuracy, and swiftness of feeling, hearing, seeing, measuring. The teacher will begin with crude material and proceed in all three of the



above lines toward greater and greater difficulty. Daily exercises must be provided and practice constantly insisted upon. The teacher must have as an ideal a degree of perfection far beyond what has been attained up to the present time.

(c) *Acquisition of motor skill* is secured best through physical culture, manual training, printing, penmanship, shorthand, instrumental music, mechanical drawing, sewing, typing, and craft-work. The aim here is to secure accuracy, swiftness, delicacy, dexterity, power and endurance. Here, likewise, it may be said that the past records must be broken and the unbelievable attained. The rank and file must be raised beyond mediocrity, must in fact press close upon the heels of the specially gifted.

(d) *Health and development* belong principally in the field of physical culture, athletics, physiology, domestic science, domestic art, sanitation, vocal music, folk-dancing, public speaking, theatricals, military training, dietetics. Corrective measures should be prominent in physical culture, as well as further development of the already healthy body. Athletics promote health, strength, and physical perfection, as well as physical courage and control. Domestic science works out a healthful diet and reveals the evils of a wrong diet. Domestic art gives the girls an ability to dress themselves becomingly without resorting to such evil practices as tight lacing and pinching of the feet with too small shoes. Vocal music develops the lungs and throat, gives correct breathing. Public speaking and theatricals promote correct posture and grace.

(e) *Acquisition of information* of a usable sort comes through a study of vocational, civic and cultural branches of learning. In the past culture was stressed; now civic information is coming into its own. Vocational knowl-

edge has broadened from the professions to include practically every honorable occupation. The information of every subject should be worth while if it is to be continued in the curriculum; but for each pupil there is a field of knowledge most worth while. The well-educated student should have a knowledge of the history of the world in general and of our own country in particular so that he will understand the present and profit by the experiences of those who have gone before. He should understand the institutions under which he lives and must work out his place in the universe. He must know the necessary facts and principles connected with his probable future vocation, and should know considerable of the contributory facts as well as related vocations. He should understand the general principles of the scientific and material world about him—physical, chemical, biological, mechanical. He ought to learn to appreciate the beauties of nature and art—music, art, literature, drama, and to be familiar with the great masterpieces.

(f) In discussing the *development of the faculties of reasoning, retentiveness, alertness, and quickness of perception*, one realizes that he is on dangerous ground. It may be assumed that there is some transfer of improved efficiency through most of our subjects resulting in specific and general abilities. For the reasoning power, then, there are no better subjects than algebra and geometry. We must not rely upon these two subjects entirely, but should include exposition and argument in composition, grammar, economic problems, debate, and problems in science and mechanics. For retentiveness, we may use all the subjects to advantage, but in particular the memorizing of poetic and prose selection, the exact wording of geometric propositions, formulae in mathematics, meaning of words in language, and the converse—that is, the word for a certain meaning—spelling, mathematical

tables, symbols in chemistry, laws and rules in all subjects. Drill in alertness should accompany all branches, but must especially be developed by the mathematics and language teachers. Quickness of perception is closely related to alertness, and is the opposite of sluggishness, dullness, sloth. Teachers must keep always in mind the development of this faculty by practice and drill, never by exhortation and nagging.

(g) *Skill in expression* is especially within the field of English and its related subjects, debate, oratory, explanation of the solution of problems, economic and historical discussion. Oral and written composition deal constantly with this problem; and, although the ability to think may be placed first in the aims of a composition course, certainly skill in expression is the other great aim. The importance of this acquisition cannot be too much insisted upon. The teacher must constantly keep it in mind. We do not mean that he should interrupt the pupil's talk to make corrections, for the teacher will use a more tactful device than that. The pupil must be taught to turn his own mind in upon his own language before he can acquire ability to express himself well. He may be awkward at first, but speaking effectively will soon become a habit and will not require close attention.

(h) The development in the pupils of a *liking for clean wholesome pleasures* is especially the duty of teachers in the junior high schools. It is the age for forming tastes. Hence culture subjects should book large at this time, providing that we do not aim too high and thus miss the mark. Through physical education may be developed the love of physical sports and athletic games. In manual training should be aroused a pleasure in making things with the hands. In English, a love for reading good literature; in art, for looking at paintings, statuary, architecture, scenery, landscape; in music, for hearing

music of the better class; in foreign languages, for reading and conversing in an alien tongue; in history, for following the great, stirring deeds of the heroes of nations; in science, for collecting specimens and making experiments.

(i) *Purposefulness of Life.* The last aim of teaching to be discussed is one that affects deeply the lives of all boys and girls of the adolescent period. Why do I live? For my own pleasure or for a greater purpose? Are the two ideas antagonistic or complementary? What can I do now to accomplish these purposes? How shall I prepare for carrying out the great plan? What effect will my present daily life have upon it? What effect will industry, self-denial, good habits have upon it? What effect will over-indulgence, bad habits, and vice have upon it? Is it a fact that everything I do or think now has its effect which will appear later? If so, does it not behoove me to consider well what I do, not solely with the thought of its present effect but also of its future effect? Every thought and every deed should be purposeful. The pupil should decide what effect he wants to produce and then go about doing the things that will bring that result about.

**6. The Method of the Recitation Period.** We have used the expression "recitation period" because it is a term widely understood, and not because we believe that in any sense it should be a recitation to the teacher, of facts learned by the pupil in private study of an assigned lesson. On the contrary, we regard the period as a space of time allotted in the program to the concentrated study of some particular subject. The teacher is to teach through the medium of a certain subject, habits of industry, motor skill, health and development, usable information, reasoning, retentiveness, alertness, quickness of perception, skill in expression, a liking for whole-

some pleasures, or life purposes, or a combination of several or all of these things. We shall draw no clearly defined line between the study part of the period and the so-called recitation part. In fact, the whole period must be regarded as a study period in which the pupil is making progress every minute toward the working out of some problem.

It may be accepted as a truism that a pupil will attack with greatest avidity, and will get most out of, that in which he has the largest interest. It follows that the first business of the teacher is to arouse the pupil's interest in the problem or subject. Attention both precedes and follows interest; but the first attention may in some cases be compelled attention, although in many instances it is aroused attention. A globe on the teacher's desk, apparatus on a demonstration table, a few notes sung by the teacher, the explosion of a chemical gas—all serve to attract the attention and arouse the interest of the class. The period's problem is then presented by the teacher or thought out by the pupils. There is the excitement of a game as the problem gradually unfolds itself to the pupil and he begins to see clearly what he has to do. One of the necessities of careful preparation by the teacher lies in the laying out of a definite problem for his pupils. The solving of this problem is the work of the "recitation period." There should be no more literal recitation than is absolutely necessary—just enough for the teacher to make sure that the pupils all do and understand the work.

Viewed in this sense the whole period may be one of supervised study. Many of the pupils will do the work without much direct supervision. Others will need the close supervision of the teacher, who may need to watch the pupil's solution of the problem step by step. Ten or fifteen out of a group of twenty-five may need to have the



teacher accompany them paragraph by paragraph through a history lesson, help them look up all the references, and see that they get the real point out of each reference. The wise teacher will avoid interfering with the pupil who works well by himself. Such pupils may work in the library or elsewhere during part of the period, coming to the classroom for a summing up of their gleanings. This kind of school-work may be regarded as self-propelled education and is highly desirable. The object of the supervised study should be to produce self-propelling students out of all the pupils. This method does not imply that certain students shall go faster than others; it will, however, result in some students putting far less time upon certain subjects than other students will have to do.

This method of teaching is more analogous to the laboratory method than to the recitation. We are all familiar with the laboratory method as applied to the sciences and with its counterparts, the library method as applied to history, the shop method as applied to manual arts, and the gymnasium or playground method as applied to physical education courses. Supervised study would not interfere with these plans and methods: it would apply many of the principles of the laboratory method to other subjects, such as English, mathematics, the languages, and the vocations. Teachers sometimes object to it as requiring more preparation and planning on their part. This seems to us to be an argument in its favor.

The introduction of supervised study will not eliminate the review recitation altogether. It is highly desirable that the class be got together two or three days each week for a conversational review of the work covered. The question and answer method may prevail at these meetings, but the pupil should be encouraged to ask the

teacher questions also. Such questions may be jotted down and handed to the instructor before the review recitation begins. While conversational reviews are essential and experienced teachers are expert in the management of them, the principal should insist that they be not engaged in too frequently.

Finally, a modified lecture recitation should be used occasionally in all subjects. It may be presumed that the teacher has had wide experience and that it would be to the benefit of his pupils if he would tell his pupils of those experiences. This will be entertaining as well as instructive and will draw teacher and pupils close to each other. Possibly the teacher may have carried on careful investigations in college or outside, the data from which would be of considerable value to his pupils. The best teacher will have done wide reading, the results of which should be retold to those who study under his tutelage. In many cases the teacher may secure outsiders to come in and talk to his classes along certain lines. Care must be exercised that the right persons are chosen and that the matter is presented in a clear and interesting way. This supplementary information drawn from the teacher's experiences or from outsiders is well worth while for the education of the young people. It correlates school with life, and serves to stimulate and inspire boys and girls at an age when they are in greatest need of stimulation and inspiration.

## CHAPTER IX

### ADMINISTRATION OF THE JUNIOR HIGH SCHOOL

**1. The Faculty.** We wish to discuss the subject of the administration of the junior high school not so much from the point of view of the city superintendent as of the principal of the school and those who aid him. We may in this chapter consider that we have a school of three hundred to six or seven hundred pupils and from fourteen to twenty-five teachers. With such a school and a faculty already appointed and assigned to his building, the principal has certain problems demanding solution.

It is not conceivable that he undertake all the details of administration. He must delegate powers and duties to teachers, janitors, and pupils; and the most successful principal is he who can delegate most functions while he maintains control and supervision over all. In delegating these functions he must use great wisdom in selecting the persons to do the work. They become his authorized agents; if they fail, he is, and should be, held responsible.

The largest working body—as agent of the principal—is the faculty. This does not need any formal organization. All the teachers of the school are *per se* members of the faculty. The faculty holds meetings only upon the call of the principal, either at regular intervals or when necessity arises. The principal acts as chairman of the faculty meeting. Where many questions are to be discussed, it is sometimes advisable to have a recording secretary, perhaps the principal's stenographer. The principal delegates to the faculty as many matters as he

deems wise. If he feels that the judgment of the faculty is good, is better than his own acting alone, he will do well to ask the teachers to pass upon many questions of importance. If the faculty lacks good judgment, is prejudiced, or is divided, it were better for the principal not to refer important matters to it. Through these meetings the principal communicates to the faculty his plans of organization, his ideas on educational policy, and instructions that come from the superintendent. It is best not to burden a faculty with too many questions for it must be borne in mind that each teacher has his own teaching work to do and plans to make.

Some principals find it worth while to divide the faculty work among committees of the faculty. He appoints these committees and outlines the work desired. One principal of a secondary school, appointed faculty committees on codification of rules and customs of the school, on preparation of plans for student self-government, on current educational progress, on discipline, etc. These committees made their reports and recommendations to the principal, who adopted them, rejected them, or referred them to the faculty as a whole. Valuable information is gathered in this way, and unity of action is secured.

It is well to assign to the various teachers duty as registration officers, or as class advisers. The principal will soon learn which of his teachers are adapted to this kind of work. A registration teacher needs to be exact, methodical, firm, a good judge of child nature, and active. A class adviser must be in sympathy with young life, must appreciate its pleasures and troubles, must be a good organizer, and must have a winning personality. Such teachers are even closer to the pupil than is the principal. For class advisers, the principal should pick

those teachers who are closest to him, understand his ideals and policies, and are ardent advocates of them.

The principal will find it convenient and effective to assign to each teacher some collateral duty. It may be as coach of boys' or girls' athletics, coach of debate, leader of orchestras or of bands, cross-country chaperon, auditor of student-organization accounts, coach of the school plays, faculty member of the staff of the school newspaper, etc. Teachers should be chosen for their fitness for the work; but sometimes teachers should be appointed to certain tasks in order to develop the teacher. One of the tasks laid upon the principal is that he make excellent teachers out of those assigned to his building. He must bear this in mind.

**2. Supervision.** In small communities having not more than two or three such schools, the superintendent should supervise directly the departmental work of the junior high school or delegate part of such duties to principals. In cities having more than three such schools, there should be a supervisor of subjects or several supervisors of subjects. These supervisors are to attend to the matter to be taught, its kind, quality, and amount; the providing of the proper supplies, equipment, and accessories; the best methods of teaching the subjects; the making of the curricula; the proper articulation with the courses of the grades below and above the junior high school. The supervisors are to work in harmony with the principals of the intermediate schools, are in fact advisory aides to the principals, and should stand to the principals and teachers in the same relation as heads of departments. The superintendent when acting as supervisor has the same duties, but he is also the administrator of all the schools and occupies a dual headship. The supervisor does not take over the whole authority



of the superintendent: he merely acts for the superintendent in the restricted field described above.

There are other officers in the city who exercise wider authority than one school, but their functions are also limited to one or two particular fields each. The director of the bureau of vocational guidance within a restricted area of activity is a supervisor. The vocational adviser exacts reports from the teachers, plans vocational stimulation, brings in outside speakers, arranges trips to industrial institutions, and himself teaches a class in vocational information and guidance. He makes himself useful to the principals of the various secondary institutions by making out the curriculum for the pupils and by interviewing pupils who are desirous of leaving school, in order to hold them in school for their own good.

Then there is the bureau of compulsory attendance that touches the life of each school, the pupils and the teachers. This, too, occupies a restricted field and performs such work as is delegated to it by the superintendent. Within this bureau are the chief of the bureau, examining physicians, nurses, attendance officers, parental-school teachers, home teachers, interpreters. In a small city this work may all be entrusted to one person. In any case it touches the junior high school frequently, as it is during the age covered by this school that the compulsory attendance law ceases to operate. Again, it may be noted that the various activities of this bureau are an aid to the principal of the junior high school, and should be so regarded by him. The members of this bureau should also endeavor to be of the greatest assistance to the principals.

**3. Organization of the Schedule.** In the making of a schedule nowadays it must be accepted as a necessity in many cases that pupils are not only to recite every lesson at school but also prepare every lesson at school. This

is a feature of the junior high school and raises innumerable problems. Of course this does not mean that certain home reading of good literature and of magazines shall not be required. But the regular subjects occupy only the school day. This problem is rendered more difficult as physical education, athletics, debating-society work, chorus rehearsals, etc., are also to be done at school. The upshot of the whole matter is that the school must be greatly lengthened to even longer hours than existed before enthusiasm for short and shorter sessions broke out. Many progressive schools have taken the lead and are now holding from 8:30 in the morning to 5 o'clock in the afternoon, with one hour for noon. Economy in space and teachers has even made it necessary to have some classes going on during the noon hour.

Assuming an enrollment of 400 pupils, and classes averaging twenty-five pupils each, and each pupil carrying five major subjects, we have a school with 80 recitations per day. Such a school would probably have 16 teachers. One plan would provide for eight periods of sixty-three minutes each (the three minutes for passing, leaving sixty minutes in the clear). The morning session would begin at 8:30, and the periods end as follows: (1) at 9:33; (2) at 10:36; (3) at 11:39; (4) at 12:42; (5) at 1:45; (6) at 2:48; (7) at 3:51; (8) at 4:54. Most of the students would eat lunch during the fourth period many would try to reserve the seventh and eighth periods for athletics. A large number would prefer to have the first period for study only. To the eighty recitations mentioned above must be added eight study hall periods, making a total of eighty-eight to be divided among sixteen teachers, an average of fewer than six recitations each. Now, if we assume that all sixteen teachers would teach during the second, third, fifth and sixth periods, we dispose of four times sixteen, or sixty-four, class recita-

tions, four of which would be study hall supervision. In this way, only twenty-four recitations and study hall periods would be left to be disposed of during the first, fourth, seventh, and eighth periods. It may be readily seen that the schedule could easily be arranged so as to have the first, fourth, seventh, and eighth periods almost entirely for study, luncheon, recreation and physical or manual culture, respectively. Those who took their physical culture earlier in the day would be assigned regular recitations during the later afternoon periods.

This program provides for long periods and no recesses as such. It does, however, assume that three minutes shall be allowed for going from class to class and that this amount of time is ample for providing an opportunity to visit the toilet, get a drink, carry a message, etc. A sixty-minute period permits of supervised study. Some schools use the first twenty-five or thirty minutes of the period for recitation and the remaining time for study under the general direction of the teacher. If some of the pupils have learned to study economically and effectively before entering the junior high school, they may be segregated during the last part of the period, while the teacher devotes his time to teaching the others to study.

**4. Clerical Work.** There is an immense amount of clerical work connected with the administration of a junior high school. It is best to have a principal's clerk to do it, but this is not always practicable. Some of it must be done by the principal himself while much of it can be done by delegating it to teachers or to pupils. The ringing of bell-signals, answering the telephone, running errands can be done by pupils where there is no other agency. Many pupils like to do this kind of work and become very efficient. It is not just to impose

upon them; but the good training gained offsets the loss of time where the latter is small.

In classes teachers must take the roll, and make a report to the principal at noon, night, after each period, or at the beginning of each period. The principal will find that his control of the school is greatly facilitated by following up the matter of attendance closely. It is well for him to devote the whole first period of the day to getting reports of absentees and telephoning to the homes where there is doubt in his mind about the cause of absence. Sometimes it is safe for the pupil of a class to make the report for the teacher and hang the slip on a hook outside the class-room door. The principal sends a pupil around to collect these reports, assembles them and keeps the school record of attendance. There is no excuse for careless records: they are the mark of a poor principal.

Every principal should have a complete system of files. The card system is best. The card should show the pupil's name, age, birthday, nativity, parents' names, address, telephone number, schedule of studies, and remarks. Another card may show his grades, his characteristics, his vocational tendencies, and such other information as the principal may need in promoting the best interests of the pupil and of the school. Files should be kept under lock and key and in a fireproof cabinet, for if they are worth keeping at all they are worth preserving safe from curious outsiders. Here again the principal is known by his works, the systematization of his information, and his estimate of pupils.

If the principal does not have a stenographer, he should himself learn to use a typewriter. He will do well to keep a carbon copy of every letter he writes, every order or instruction he gives, every report he makes, as well as the original of all communications he receives. These

should be filed and indexed so that he can readily get at what he wants. This may cost him much work but it will be well worth while as a labor saving device. Cross files are worth while as are also indexes of information and data. After a card system has once been worked out, it does not take long to make the few entries necessary. A filing system that merely arranges correspondence alphabetically by the surname of the correspondent is not sufficient: there should be made an index of the contents of the correspondence.

There are numerous reports constantly being called for by the superintendent's office or by others. These, with the regular reports of attendance, promotion cards, grade cards, financial statements, form a large amount of the clerical work. There are innumerable checks, room excuses, and passes to classes to be filled out and filed. Then there is the vast amount of supplies to be ordered from the central stock-room, to be apportioned to the teachers and to the janitors. An old school system will have all the blanks and forms necessary for this clerical work; but a new school will have to attack the problem of making up these forms for its own use.

In this connection is the principal's relation to the janitor. If the janitor is chosen for his efficiency and ability, he will keep the halls, rooms, windows, grounds, lawn, and toilets in perfect condition without suggestion from the principal. Otherwise, it becomes the duty of the chief administrative officer of the school to see that everything is in shipshape. One method of procedure is for the principal to make a regular tour of inspection every morning at a certain hour and to let nothing interfere with that job. He should first note on a card the things he wishes to see to, and then check them off as he completes his inspection. Here are some of the things: Rubbish on grounds, lawn, shrubbery, heating of the



rooms, blackboard cleanliness, floor sweeping, desk cleaning and marring, curtains and light, windows and picture glass clean, toilets clean, marking on the walls, halls and offices. Furnaces should be inspected once a week, also fire escapes and fire hose. Repairs should be attended to at once.

**5. Student Organizations and Activities.** The principal of a junior high school will find that student organizations and activities constitute some of his hardest problems. Skillfully managed they can be made to serve the very best purposes of education. They form a natural outlet for the exuberance and turbulence of the adolescent period. Suppression of these instincts would be fatal if it were even possible. They must be carefully guided and wisely used. Where they are quiescent or abortive, they should be stimulated and cultivated into normal existence.

It is well to organize the whole school into an association of the student body. If dues are exacted they should be so small as to be within the reach of all—not more than twenty-five cents per year. Pupils failing to pay during the first month of school should be given full membership upon doing some work for the school such as leveling the athletic grounds, irrigating the field, keeping certain records, or mending nets or athletic suits. The association should choose a president and vice-president from among the members of the graduating class. All assemblies of the school need not be considered student body association meetings; there will be many assemblies that the principal will want to conduct himself and which would lack in effectiveness if he had to conform to the formality of an association organization. The association may well care for such matters as school receptions and parties, school rallies, school debates, athletics, the school paper, the cooperative book-store, and the

cafeteria. The association officers should feel it their privilege to support the principal and faculty in all forward and uplift movements; and the principal should take them into his confidence in many matters pertaining to student affairs. Financial matters should be carefully supervised and audited by the principal or by some teacher especially designated by him.

For certain specific activities there may well be other organizations, although some schools would prefer to regard them as communities or divisions of the student body association. Such are debating clubs, literary societies, class organizations, girls' clubs, boys' clubs, the band, glee clubs, athletic teams, the staff of the school paper, dramatic club. If they are all subordinate to the student body association, danger lurks in the officers of the larger body's assuming too much authority. One must not forget that children of this age lack adult responsibility and cannot attain it, no matter how conscientiously they may try. Care must be exercised to prevent clubs organized for educational purposes from becoming social fraternities of pernicious influence and snobbish exclusiveness.

Finally, there is the question of student self-government, so called. In this plan the pupils become responsible for the discipline in the school building and on the school grounds. There are pupil policemen, pupil attendance officers, pupil judges, pupil juries, pupil prosecutors and defenders. The faculty is usually regarded as the supreme court. The student body meeting assembled makes laws and ordinances governing conduct. It is fine and most excellent training in citizenship and political science.

As a movement it started with the universities, has been carried out successfully by many high schools, and is being tried in many junior high schools. It makes more

work for the faculty and requires infinite skill of the principal. It is probably best to introduce the plan gradually, entrusting at first only very limited powers to the students. As they develop the essential qualities, greater and greater authority may be extended to them. It may be necessary, however, for tradition to have time to establish good precedents and serviceable customs before the plan can succeed on a large scale.

**6. Accessories of Teaching.** There are certain accessories of teaching that the principal has to attend to in order to secure smoothness in the working of the school machinery. One of these is supplies. Most school districts furnish pens, pencils, ink, paper, blotters, and similar materials; in some states, if not all, the law makes it obligatory upon the school board to furnish these things. Some rule should be established for giving out these supplies as they, of course, should not be furnished lavishly to the pupils. A reasonable number of things, say three pencils, one penholder, three writing tablets, ten blotters, may be furnished each semester. If the pupil loses or uses up all this material in less than the five months, he would have to purchase the things he needs. A co-operative store might be conducted for this purpose.

Some schools furnish free textbooks. They are handled through the principal's office either directly or by a teacher designated by the principal. In a large school this work takes more time than a teacher may be expected to devote to it after school. If there is not a clerk to do this work, the teacher should be given one or two periods of school time for it. There is more involved in the furnishing of text-books than the mere money cost; there is a high moral content. Boys and girls do not *contribute* anything that causes a sacrifice; they do not *own* the books; they are *responsible* for *public* property.

Then there are the habits of accounting for things, taking care of things, and feeling pride in possession. Altogether, the furnishing of books free is so fraught with possibilities of good and evil that it is a very important matter.

Where free textbooks are not provided, it is sometimes possible for the co-operative book store to rent them to the pupils at such a rate as to make a profit on the transaction. If this is done, it devolves upon the principal to keep careful check of the whole matter. This service will be of great advantage to pupils, especially where expensive instruments, such as mechanical drawing sets, are obtainable. As years go by, the store may accumulate sufficient surplus to enlarge its operations in many lines.

The management and effective use of a moving picture plant entails upon the principal many administrative burdens. Ordinarily it will be necessary for him to operate the machine, arrange for securing proper educational films, work out the details of assembling classes, etc. If these matters are not carefully followed up by the principal himself, he will find that the enthusiasm first displayed upon installing the machine will gradually wane and the visual methods of instruction will be discontinued altogether. The same may be said of other valuable aids to teaching. The tendency of the teacher is to neglect those methods of teaching which require elaborate preparation and irksome delays. If globes, charts, stereoscopic views, herbaria, inaccessible specimens, etc., are to be used, the principal must make it his business to help get things ready.

Every junior high school should have a good working library, well-stored with books, and easily accessible to students. Someone must attend to the purchasing of books and magazines, cataloguing them, and issuing them

to pupils. Then someone must advise teachers and children what to read and where to find it. Frequently debaters need help in getting material. It is desirable to make up bibliographies on various subjects to be taught. The principal has to get someone to do these things or else do them himself. In a small school the principal would probably find it best to assign a teacher to this work. In a large school, a librarian should be employed.

**7. School Interruptions, Exercises, etc.** Among the problems with which the principal has to cope are the interruptions to regular routine work—some pernicious, some wholesome, some preventible, some unpreventible. Occasionally the good of the school demands that routine work be interrupted for an hour, a day, or a week and the children be given something that educates, elevates or rests them. Vacations and holidays are usually decided upon by the board of education or the superintendent. Sometimes there is a demand for a slightly early afternoon dismissal, for a short rainy-day session, or for an hour on the lawn. Such matters are put up to the principal. If too frequent, they greatly hinder good school work; if very, very infrequent, something good may be lost.

After all, it is a matter for the principal to weigh and consider, to experiment with and to record results. How often shall I have fire-drill? How shall I conduct it? One thing is essential to make a fire-drill worth anything—*everybody* must be required to leave the building, teachers and principal included. Speed is desirable, lack of conflict should prevail. It is far best that no one except the principal should know whether it is a fire-drill or a real fire. If a careful direction is given to the school at the beginning of each semester, one drill per month should be frequent enough.



Assemblies should be called when the principal has something important to give. Many principals keep a note of matters as they come up, and when several have accumulated, they call the students together and announce all the matters at one time. A principal will invite noted speakers and others who happen to be in town at the time to come to the school and deliver a message to the assembled students. It may be a distinguished singer, artist, actor, author, government official, or other person whom the pupils would profit by seeing and hearing speak. The principal will have to be careful to stave off people who wish to make use of the school for advertising their wares or talents.

Some other problems in this connection are the management of telephone calls, the disposal of photographers, and the meeting with school-book men. Many schools have removed the telephones because of the temptation to parents to use them on the simplest pretexts. The telephone girl becomes a slave to parents who want their child to do this or that before coming home at night. Other schools have a rule that no pupil or teacher shall be called out of class except upon extremely serious matters. Pupils are not permitted to use the school telephone except upon school business. A charge of five cents for the use of the 'phone would probably stop its indiscriminate use. In many towns photographers pester the principal with requests to permit them to take the pictures of classes, groups of pupils, or interiors of rooms, offices, and apparatus. The principal will be expected to guard the interests of the school children and not permit interruptions and loss of pupils' time. Representatives of school-book companies visit the school frequently and consume much time of principal and teachers. This time is not wasted; in fact the selection of proper text and supplementary books is of the very highest value.

Such representatives are usually courteous and considerate. The principal will arrange for their meeting the teachers without interfering with the regular work of the school.

**8. Moral Guidance.** In discussing this subject at this place we are treating it purely as a part of the administrative functions of the principal and teachers. If it were treated in full, it should properly occupy a chapter of a book of this kind.

Unquestionably, the formation of moral character is of tremendous importance throughout the school age, and the period of adolescence is especially fraught with possibilities. We have spoken of the adolescent age as that of religious awakening, of conversion, and of emotional religious experience. It is also a period of the awakening of social consciousness and responsibility. Psychologically, it is a period of doubt, introspection, brooding, self-examination, self-reproach and condemnation, of a feeling of unworthiness. But it is, likewise, an age of stubbornness, rebellion against restraint, violent passion, ill temper, greediness, carelessness in speech, and the awakening of sexual desire. These anti-moral and anti-social instincts find expression in laziness, truancy, slovenliness, slang, disrespect, over-dressing, over-eating, swearing, dancing, smoking, sexual vices, lying, and thievery. While the sins of adolescent girls are less spectacular and apparent than those of boys, they are nevertheless just as real and just as undermining to moral character. The tendency of parents is to minimize the importance of adolescent excesses; the tendency of the church is to overestimate their importance. The position the school should take is one of sympathetic treatment of the adolescent victim, who is not responsible for the temptations.

Something wholesome must needs be substituted for the bad. Principals and teachers cannot shut their eyes to what is going on; they must create a clean atmosphere for the school. We knew of a small high school where the teachers all left the building at noon, where the boys and girls danced during the absence of the teachers, where flirtations had sapped the vitality of the school, where boys and girls sat in single seats together during intermission and even during school hours, where swearing was common on the school grounds, where cheating in school and in athletics was the rule, where books of the school and supplies were stolen daily, where truancy went unpunished and unnoticed, where disorder was rampant, where the principal was assaulted by several boys, where obscene literature and pictures circulated among the pupils of both sexes, where the whole week was a feverish preparation for Friday night's dance. This was a high school that had no eleventh grade and fewer than a dozen pupils in the twelfth. It was practically a junior high school, and the problems existing in it are duplicated in every such school.

The principal that undertakes the moral guidance of such a school has a tremendous task. His teachers must be carefully chosen and carefully assigned to strategic positions where offenders can be detected and offences prevented. The junior high school must not be made a reformatory or a penitentiary. If it devotes its main attention to dealing with offenders one by one, it will soon meet destruction. It must be organized with the idea of giving adolescents so much of good to do that the bad cannot creep in. Here the school must rely on physical exercises, clean sports, manual activities, pure social pleasures, correct diet, clean but absorbingly interesting books, simple dress (school uniforms if necessary to curb a propensity already existing), politeness and

good manners. The underlying principle is, keep the adolescent so busy doing right things that he will not have time to do wrong. This may extend to the point of co-operating with the pupil's home in a 24-hour daily program. Successful will be that principal who secures the confidence of the homes so that he can supervise not only the school hours of the pupil but the home hours also. If he can go further and work out with the churches a program for Sundays, his influence for good will be unbounded.

Suppose, however, that a principal and faculty find a junior high school in the condition of the high school described above, what can they do? To expel gross offenders and try to reform petty offenders may become necessary. But the chief task to be attacked will be the educating of the school in higher standards of right. This means a well planned campaign that must involve sympathy, resourcefulness, wisdom, tact, understanding of the adolescent's mental activities, force, and even, perhaps, the mailed fist. The manly, the heroic, the courageous, the chivalric, the war-like, the religious spirit of boys must be appealed to along the line pursued by the Boy Scouts organization. The pure, the chaste, the health-seeking, the out-door, the fun-loving, the religious spirit of girls must be appealed to along lines adopted by the Camp Fire clubs. It may be necessary to talk very clearly to each sex, or even to assign boys and girls to separate classes or schools. Moral guidance is a paramount function of the junior high school; it must succeed in this work no matter how drastic may be the actions necessary.

## CHAPTER X

### THE JUNIOR HIGH SCHOOL IN ACTION

**1. Introduction.** It is planned to describe in this chapter two fairly typical junior high schools—a small one and a large one. The small school is not to be regarded as representing the minimum size for success, for it began with two hundred fifty pupils, and it is well known that many junior high schools of fewer than 100 pupils each are successful in carrying out the purposes of this type of secondary school. But in a general way it may be regarded as the minimum size for a community in which it would be possible to have a larger school. In a community having 500 pupils enrolled in the 7th, 8th, and 9th grades, it would probably not be wise to establish more than two junior high schools. In a community having fewer than 250 pupils in these grades and having a senior high school in it or near at hand, it would possibly be best to place the junior high school on the same grounds with the more advanced institution.

The larger school to be described has an enrollment of about 1000 pupils. This cannot be considered as being the maximum size for best success, since many cities are building schools for more than 2000 pupils each. But a school of one thousand pupils can probably provide for all the types of work and play that could be carried on in the largest junior high school conceived. Unless a city is greatly congested so that space is not available, it would seem best for children of such diverse and heterogeneous development that they be grouped in



schools of moderate capacity, say not more than 1200. This number is being considered a maximum in communities which are not handicapped by adverse conditions. The school described in this chapter may, therefore, be regarded as somewhat representative of the larger junior high schools.

### **THE KAUFFMAN JUNIOR HIGH SCHOOL**

**2. History of the Kauffman School.** The railroads divide the city of Pomona, California, into two sections approximately equal in population. In 1915 the population of the southern half was approximately 6000, the school enrollment was about 100 to a grade in the elementary division. The four-year high school was located several blocks to the north of the tracks. In the year mentioned, at the beginning of the reorganization movement in Pomona, four intermediate schools were started, two on the south side and two on the north. They occupied the upper floors of elementary school buildings. Ninth grade pupils were encouraged to remain, but were not required to do so until the next year.

In September, 1916, a centrally located mission-type grammar-grade building on the south side, known as the Kauffman Building, was vacated of elementary children, and the two south side intermediate schools were united at it to form the south junior high school, or the Kauffman Junior High School as it is now called. It is selected for review in this book because it has a continuous history in the same location since it opened in 1916.

The building was a Type E structure with almost nothing fire-proof about it. It sat in the middle of a single city-block containing an area of approximately one and one-half acres. The room available for playground purposes was entirely inadequate for the elementary school that had existed there. It was now planned

to purchase a vacant block of ground located one-tenth of a mile distant. The owners leased the ground to the school with the option to buy, and it has since been bought by the school district. This took care of the athletic needs.

The board planned to utilize the space about the original building in the following manner: on the northwest corner of the block, to erect an auditorium to seat 500 persons; on the northeast corner, a library and music building; on the southwest corner, a home economics building; and on the southeast corner, a shop building. By careful economy of finances approximately \$20,000 would be available for each unit each year. The auditorium was actually constructed, and partitioned with rolling doors as walls. It is used in this way during part of the day as a gymnasium and orchestra or band room. A moving picture machine was bought and installed, one that is still in good condition.

A temporary shop building was constructed by the boys under the supervision of Principal I. W. Kibby, and served for several years. Being distant some little way, its noise did not become a nuisance to students in the main building. It was intended that the main building should be replaced by a Class A fireproof building after the four outlying buildings should have been completed.

The school at first enrolled about 250 pupils. Supervised study was adopted. Vocational and educational guidance and counseling became a strong feature of the school. One teacher gave his entire time to this work. Vocational exploration was begun and considerably developed, there being try-out units in woodwork, building construction, sheet-metal work, auto and allied mechanics, agriculture, and commercial-clerical work.

In the curriculum the following courses were given special prominence: drawing and fine arts; industrial

arts; handicrafts; cooking; sewing and the home arts; instrumental and vocal music; mechanical drawing; agriculture; typing and clerical work; physical education, hygiene, sanitation, and athletics. Social-civic and cultural work was not neglected. Debating, dramatic, literary, social, and other clubs, were organized.

In 1919 the people of Pomona felt that the school authorities had gone too fast in the reorganization of secondary education, and elected a new board to check the development. Its opposition was directed especially against the junior high school, vocational and educational guidance, the liberalizing and enrichment of the curriculum of the seventh and eighth grades, and anything that smacked of vocational education. The plan of adding buildings on the Kauffman grounds was entirely discarded. Supervised study was discontinued; and the educationally condemned large-study-hall was established. An addition was built to the non-fire-proof main building. A noisy shop-room became a part of the main building, and the outlying shop (built by the boys as exploratory work in building construction) was torn down.

The enriched courses of arts, sciences, handicrafts, typing and agriculture, were taken out of the seventh and eighth grades, and these grades again repeated the work of the elementary school. Guidance features—such as have made the Holmes School of Philadelphia probably the most progressive junior high school in the country—were discarded. Vocational exploration was definitely and pointedly thrown out.

The city superintendent, the principal of the Kauffman Junior High School, and the teachers of these newer things, resigned. But in spite of this counter-revolution some things remained: (1) the junior high school organization; (2) several teachers who had served in contact with the movements begun in 1915 and 1916; and (3) many

parents whose children had enjoyed a rich and profitable experience under the progressive regime. A visit to the school today will reveal the fact that many of the discarded activities are beginning to come back.

**3. Survey of the Kauffman School.** In the survey made of the Kauffman school the following guides were made use of:

- (1) Community Score Card prepared by the Federal Council of Citizenship Training.
- (2) Strayer and Engelhardt's Score Card for High School Buildings.
- (3) Bennett's Checking List of Junior High School Practices.

The Kauffman Junior High School draws its 375 students almost entirely from that section of the city of Pomona which lies south of the Southern Pacific Railway. This section will be referred to as the Southside. The total area is approximately four square miles, two miles from east to west along the tracks and two miles back from the tracks. The well-settled part of this area extends for two miles along the railroad and about one mile back from it. The Kauffman building is two blocks to the east and two blocks to the north of the center of this well-settled area. This area will be referred to as the urban or sub-divided section of the junior high school's territory or district. The thinly-settled area round about will be spoken of as the rural or agricultural section.

The population of the rural section consists of small farmers—orchardists, poultry-raisers, truck-gardeners. Some of these farmers have small businesses in the city of Pomona. The urban section contains approximately one thousand five hundred families, of whom one-fourth are Mexicans. The Mexicans are day-laborers. Practically all of the other heads of families are wage-earners

in the numerous factories, plants, packing-houses, repair shops, stores, city and private offices, and other establishments of Pomona. The average income of the small-farmers, shop-keepers, and American wage-earners does not exceed \$1500 per annum, and the average income of the day-laborers per family does not exceed \$1000. The only foreign element is the Mexican. There are no Japanese or South Europeans, and of the Americans there are practically no negroes. There is little or no race antipathy between Americans and Mexicans, and no segregation of homes. The compulsory education law of California requires daily attendance up to the sixteenth birthday. Mexican children rarely complete the sixth grade at this age. The number of Mexican pupils in the Kauffman school is negligible. If all children fourteen years to sixteen years of age were sent to junior high school, irrespective of educational attainment, there would be fully seventy-five Mexicans at the Kauffman building. If, in addition, work were offered there that would interest these foreign children, possibly fifty Mexicans over the compulsory age limit might be retained at Kauffman. Aside from Miss Porter's cooking class for Mexican girls, there seems to be no provision for the children of Spanish speech.

The location of the school, while not quite ideal, is suitable. No child has more than one and one-half miles to walk, and fully 90 per cent of them have less than one mile to go. There are no rivers, streams or swampy places in the district. The section, however, is flat and the natural drainage is poor. After a heavy rainfall the roads and streets are impassable for a day or two for pedestrians. There is no hill in the section upon which the school could have been built. There are no local street car lines in Pomona; and the interurban line does not penetrate into the Southside district. The railroad does not



intersect this section, and the school house is six blocks from the tracks. Approximately half of the pupils have to cross Garey Avenue, which is a boulevard, but not greatly congested with traffic.

The possibilities of immoral temptation (probably not differing from those found in all cities) are about as follows: (1) the school is close to the business district in which several pool-halls exist; (2) several Mexican shops sell cigarettes and tobaccos, and are hard to control; (3) dance halls and private dancing places exist, and very young boys and girls frequent them; (4) there are some deserted shacks and several out-of-the-way courts and alleys where boys congregate; (5) petty thievery, petty gambling, and bottlegging have been reported as existing in this section; (6) in the repair-shops swearing and dirty stories are heard more frequently than elsewhere; (7) walls, fences, and sidewalks are occasionally marked up with lewd pictures or words. A large number of boys work after school in this environment. The Kauffman school has from the beginning been an active agent for moral uplift. Measures taken have been those common everywhere and include: (1) the principal uses his influence to have the city council pass regulative ordinances; (2) he actively works with and inspires the police force in the enforcement of state regulative laws and city ordinances; (3) a program of physical education and athletic sports interests the pupils and engages their idle hours; (4) social parties, dances, plays, and picture-shows under chaperonage are initiated by the school; (5) club life is being started for interesting pupils, for refinement, for civic-improvement, and for health and sanitation.

The following is the curriculum of the Kauffman Junior High School at the present time:

SEVENTH GRADE

Required Courses:

1. Arithmetic, 5 recitations per week, 55 minutes each.
2. Geography, 5 recitations per week, 55 minutes each.
3. English, 5 recitations per week, 55 minutes each.
4. Woodwork and Freehand Drawing, 5 recitations per week, 55 minutes each, or
5. Sewing and Freehand Drawing, 5 recitations per week, 55 minutes each.
6. Physical Education, Penmanship and Spelling, 5 recitations per week, 55 minutes each.

EIGHTH GRADE

Required Courses:

1. Arithmetic, 5 recitations per week, 55 minutes each.
2. U. S. History & Civics, 5 recitations per week, 55 minutes each.
3. English, 5 recitations per week, 55 minutes each.
4. Physical Education and General Science, 5 recitations per week, 55 minutes each.

Electives:

1. Spanish, 5 recitations per week, 55 minutes each.
2. Woodwork and Freehand Drawing, 5 (3-2, 2-3) recitations per week, 55 minutes each.
3. Cooking and Sewing, 5 (3-2, 2-3) recitations per week, 55 minutes each.
4. Vocal Music, 5 recitations per week, 55 minutes each.
5. Instrumental Music, 5 recitations per week, 55 minutes each.

NINTH GRADE

Required Courses:

1. English, 5 recitations per week, 55 minutes each.
2. Algebra, 5 recitations per week, 55 minutes each.
3. Physical Education, 5 recitations per week, 55 minutes each.

Electives:

1. Ancient & Med. History, 5 recitations per week, 55 minutes each.
2. Spanish, 5 recitations per week, 55 minutes each.
3. Latin, 5 recitations per week, 55 minutes each.

4. General Science, 5 recitations per week, 55 minutes each.
5. Vocal Music, 5 recitations per week, 55 minutes each.
6. Instrumental Music, 5 recitations per week, 55 minutes each.
7. Woodwork, 5 recitations per week, 55 minutes each.
8. Cooking, 2 recitations per week, 55 minutes each.
9. Sewing, 3 recitations per week, 55 minutes each.
10. Freehand Drawing, 3-2 recitations per week, 55 minutes each.

Pupils are required to carry at least 20 hours per week beside Physical Education, and each student must have at least four High School Units in order to graduate from the ninth grade.

The following is the schedule of classes for the Spring Semester of 1926:

	8:30-9:25	9:25-9:55 9:55-10:50	10:50-11:45	12:45-1:40	1:40-2:35	2:35-3:30
Miss Miller.....	9A Alg.	7A Arith.	.....	9B Alg.	9A Alg.	9B Bus. Arith.
Miss Juhl.....	7B Eng.	8B Eng.	8B Eng.	8B Arith.	.....	8B Arith.
Miss Hill.....	7B Arith.	.....	7A Eng.	7A and 7B Penmanship Spelling		
Miss Tangeman.....	9B Latin	9A Eng.	.....	9B Eng.	9A Eng.	9B Eng.
Miss Cahoon (v.-p).....	.....	.....	8A Eng.	.....	8A Eng.	7B Eng.
Miss Whited.....	8A Hist.	.....	8A Hist.	9A Hist.	9B Hist.	8B Hist.
Miss Moore.....	7A Geog.	8B Hist.	7B Geog.	.....	7B Geog.	7A Geog.
Mr. Estes.....	.....	9B Science	9B Sci.	9A Sci.	8B Sci. Girls M. W. Boys T. Th.	9A Science
Miss Bauld.....	9B Span.	9A Span.	8B Span.	8B Span.	8A Span.	9A Spanish
Miss Porter.....	9A M. W. F. 8B T. Th.	8A M. W. F. Boys T. Th.	9A M. W. F. 9B T. Th.	.....	8B T. Th.	
Miss Maxwell.....	8B M. W. F. 9A T. Th.	8A .....	9B M. W. F. .....	7A and 7B	7A and 7B	

	8:30-9:25	9:25-955 9:55-10:50	10:50-11:45	12:45-1:40	1:40-2:35	2:35-3:30
Miss Reynolds..... Fd. Drawing.....	8B T. Th. .....	8A M. W. F. .....	9A M. W. F. 9B. T. Th.	7A M. W. F. 7B T. Th.	7A and 7B	8A
Mr. Lyman..... Woodshop.....	8B M. W. F. .....	.....	9A and 9B .....	7A T. Th. 7B M. W. F.	7A and 7B	8A T. Th.
Miss Bekley.....	Orchestra	.....	7A T. Th. 7B M. W. F.	7A. 7B M. W. F.	Inst. Music	Inst. Music
Miss Palmer.....	Glee Club Girls T. Th. Boys M. W. F.	8A Arith. .....	Glee Club Girls M. W. F. Boys	8A Arith. .....	Glee Club Girls T. Th.	7A Arith.
Mr. Benner..... Phys. Ed.....	9A 9B	7A 7B	.....	8A 9A	8B 8B	
Miss Brown..... Phys. Ed.....	9A	7A	7A M. W. F. 7B T. Th. Pen. Spell.	..... .....	8A 8B	9A



The faculty of eighteen (including the principal) consists of fourteen women and four men. The following are men: the principal, the teachers of boys shop-work, of boys' physical education, and of science. This is a smaller percentage of men than one will find in the faculties of junior high schools of the West generally. There is much to be said in favor of having about as many men as women teachers in the junior high school.

The pupils in the seventh grade are divided into two groups on the basis of demonstrated scholarship in the sixth grade. Adjustments are made in the first few weeks of the seventh grade. No differentiation in the character of the work of this grade is made for the brighter group, but they are encouraged to take Spanish in the eighth grade and to look definitely forward to college work. The principal is interested in educational guidance, and finds time to carry on some research and experimental studies of his own pupils.

The thirty-minute period between 9:25 and 9:55 is called the registration period. The pupils go to "home" rooms. Frequently this time is devoted to study, sometimes to conference and educational guidance.

The Kauffman plant was scored on the Strayer-Engelhardt Score Card for High School Buildings. Section V, Special Classrooms, had to be modified somewhat to meet the conditions of a junior, instead of a senior high school. Out of a total of a thousand points, for an entire plant, special classrooms have a weight of 140 points. The biology, botany and physics laboratories were construed to mean biology-physiology, agriculture, and electrical mechanics laboratories or shops. Even so, Kauffman had not a single one. The only laboratory in the plant is one for general science, which should give the school a score of seven points out of a total possible of 36. The scorers decided to use the

following formula as being fair, in fact lenient, to the junior high school:

Score for laboratories = total possible score — (the sum of the possible scores for laboratories which one might expect in a junior high school — the actual scores for such laboratories).

In the case of Kauffman it worked out as follows:

Score for laboratories =  $36 - [(7 + 3 + 7 + 7) - (7 + 0 + 0 + 0)] = 36 - (24 - 7) = 19$ . In this way the score for the Kauffman special classrooms was 78 out of a total of 140 possible. The cookery laboratory and dressmaking laboratories were scored as perfect, but the housekeeping apartment was scored 0. The woodworking shop was given a perfect score, but there is no print, machine, auto repair, or other shop. One might expect a type-writing room and a commercial laboratory. Neither exists. One might expect freehand drawing, mechanical drawing, arts-and-crafts, and other art rooms. The freehand drawing room was given a perfect score; the mechanical drawing is done in the woodworking room and is scored one point of a possible three. There are no arts-and-crafts, or other art rooms. The music work is well provided for in the auditorium, which is divisible into several rooms.

The site is scored high, except on the one item of size, the total area of playground is one and one-half acres for 375 pupils, and this play field is two blocks from the main building. The building is rated low on certain points, notably, type (E); material, non-fire-resistant throughout; stairways, wood, too wide, over furnaces, and inaccessible. The service systems are rated somewhat low on account of the fire protection system, the cleaning system (brooms and dusters), the water supply system (poor facilities for bathing), the toilet system (especially with regard to poor sanitation and lack of seclusion), and

the locker system (inadequate). The general service rooms receive a low score on account of the absence of a cafeteria, a boy's gymnasium, a swimming pool, and a library of any convenience. The administrative rooms are extremely inadequate, there being no private office for the principal, no general office workroom for teachers, no teacher-preparation room, and no health-service room.

Yet, withal, but partly because of the liberal method of rating the special classrooms, the plant was given a total score of 616 out of a total possible score of 1000. The plant has possibilities. Had the plan of 1916 been carried out, the plant today would have met the standards set for junior high schools. This would not have cost above \$60,000. The two rooms on the third floor could have been abandoned, or used for teacher's rest or work rooms, and the dangers arising from the non-fireproofness of the materials of construction greatly reduced.

The principal and teachers are working out with the pupils a commendable merit system, which should result in improved habits of industry and moral conduct. The description is that drawn up by Principal Emmet Clark and his faculty, and accepted by the student body:

#### MERIT SYSTEM

1. Every pupil starts every quarter with a clear record of 100 merits.
2. Perfect attendance for a quarter entitles a student to 5 additional merits.
3. Not tardy during a quarter entitles a student to 5 additional merits.
4. A merit record of 95 or more each quarter, 2 additional merits.
5. A merit record of 90 or more each quarter, 1 additional merit.
6. Students having an average of 100 or more merits for a semester will have their names published.

## RULES AND EXPLANATIONS

1. The teacher issuing demerit slips will file it in the HOME ROOM where the student's record is kept.
2. When a student's record falls to 80, he will be required to confer with the HOME ROOM TEACHER.
3. Any student whose record falls below 80 for a quarter will not be eligible for the position of captain of any team, class officer, or for any other major organization. He may be called before the faculty in conference.
4. If the student's record falls below 70, the student shall be sent to the principal. If reinstated in his classes, the pupil will be allowed to remain until his record drops to 60, in which case his parents must confer with the principal.

## LOSS OF MERITS

1. Unexcused tardiness. 2 demerits.
2. Cutting classes, indoors or on grounds, assembly, or study hall. 2 demerits.
3. Carelessness of school property,—books, athletic material, desks, buildings, etc. 1 to 3 demerits.
4. Coming to class without materials. 1 demerit.
5. Unprepared assignments, not previously excused. 1 demerit.
6. Misconduct in class, halls or on the grounds. Boisterousness 1 demerit.
7. Chewing gum, or eating, except on grounds outside school hours. 1 demerit.
8. Rudeness, disorder, etc. 1 to 3 demerits.

## REGAINING LOST MERITS

1. Thirty-five minutes of study after school under supervision. 1 merit.
2. Thirty-five minutes of voluntary service after school under supervision. 1 merit.

## THE FRANKLIN JUNIOR HIGH SCHOOL

4. **History of the Franklin School.** The growth of the junior high school idea was slow in Long Beach. While the neighboring city of Los Angeles had begun as early

as 1910, and Pomona in 1915, and the movement was sweeping the country, the Long Beach educators were watching and studying. By 1920 they were ready to act and so also was the community. The whole proposition of embarking upon the junior high school plan, including the voting of bonds for buildings, was submitted to the electors of the school district. It took a two-thirds favorable vote to carry the plan. After the election there could be no doubt that the people were behind the plan, and no one could complain that it had been foisted upon them by over-zealous school men. Funds were voted for two school plants at first; later for two others.

The Franklin plant occupies a large block not far from the business district of the city. The first unit was completed in 1922 and the second unit in 1925. Before construction began Mr. Seymour Stone was chosen principal; and he planned the school. The school opened with an enrollment of five hundred, which included a sprinkling of ninth grade pupils. The school enrolled in March, 1926, nine hundred and fifty pupils, which includes a full quota of ninth grade pupils. The capacity is probably about fifteen hundred, and it is likely that the school's district will yield that many pupils by 1930. The number of teachers has increased from 25 to 42, inclusive of principal and vice-principal.

There has been no opposition from high school faculty, students, or patrons; but, on account of the extremely crowded condition in the high school, there has been much constructive help from this source. Since beginning the junior high school plan, Long Beach has taken no backward step.

**5. The Survey of the Franklin School.** The survey was made in March, 1926, and consisted of a study of the neighborhood, the pupil population, the school plant, administration and staffing, the program of studies, the



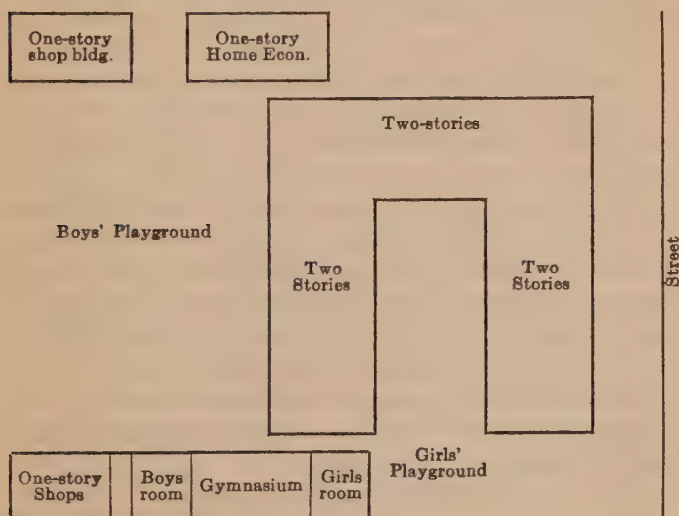
curriculum, club and social-civic activities, physical education, vocational education and exploration, cultural curriculum, and the school counselor system.

(a) *The Neighborhood.* The school's enrollment is drawn from an area one mile square, containing a population of about twenty thousand. Approximately one-third of this population lives in apartment houses and four-flat buildings, one-third in single homes of the middle class, and one-third in homes of somewhat inferior type. The single houses were built in the early years of Long Beach's history before the time when artistic house-construction secured a foothold in Southern California. A teacher, who secured a report from pupils, states that fully 90 per cent of pupils have no quiet place for study in their homes. The heads of families are probably from the following classes in somewhat equal numbers: Winter tourists, and retired farmers and business men; small-business men, and clerical, selling, and technical employees; semiskilled factory, shop, street-railway, and similar employees. There is no slum district, no Mexican element, no "beach-lizard" class, no questionable class, and no wealthy people to speak of. The social and economic structure is substantial and fairly homogeneous. There are no Japanese or other foreigners.

(b) *The Pupil Population.* There are between nine and ten hundred pupils. Practically all of the pupils are within the ages of compulsory attendance. The two sexes are equally represented. They hail from all over the United States, have moved about, and consequently one is not surprised to find that 26 per cent are over-age for their grades. Although pupils in Long Beach are admitted to junior high school on the basis of age as well as scholarship, there is none of this class in the Franklin school. Physically they are in good condition. Fewer than sixty have been admitted to corrective classes.

(c) *The School Plant.* The plant is located at the center of population and not far from the geographical center of the district. Practially all of the pupils can walk to school. There are only two street-car lines to be crossed, by perhaps one-half the pupils. Traffic conditions offer no serious menace. The plant is fully a city block from street-car line or busy thoroughfare. The surroundings are decent, clean, and somewhat in keeping with the character of the school. The grounds are flat, as is the land all about, but drainage is good except at one corner.

The whole school grounds are four and one-half acres in area, the buildings and lawns covering about one-half of it. This leaves play space somewhat inadequate for the 950 pupils. By careful programing the school finds sufficient play space at present. The shape of the grounds and buildings are according to this diagram.



The school is provided with the following rooms:

1. An auditorium seating 600 pupils.
2. Three study-halls seating 120 pupils each.
3. A roofed gymnasium open on one side.
4. A mechanical-drawing room and an orchestra room.
5. Four shop rooms (wood, sheet-metal, print, and auto-repair).
6. A cafeteria.
7. Cooking room, sewing room, fitting room, and housekeeping apartment.
8. Two science laboratories.
9. Thirty recitation rooms.
10. Offices for principal, vice-principal, and counselor.

On the Strayer-Engelhardt Score Card the plant was rated at 890 points. The features scored down were: size of grounds, capacity of auditorium (which is 600 for a school built for 1500 pupils), no swimming pool, inadequate offices and workrooms for teachers, only one pupil club-room, only one gymnasium (and that open to wind and weather). The buildings, however, are practically of fire-resistive materials throughout.

(d) *Administration and Staffing.* Mr. Stone has been the principal since the inception of the school. There is one full-time woman vice-principal, one full-time woman counselor, a nurse for half-time, an orchestra director for  $\frac{3}{20}$  of his time, two corrective gymnasium teachers (a man and a woman) for half time of each, eleven classroom men teachers, and twenty-seven classroom women teachers. Aside from the orchestra director, the pupils come in contact with 13 men and 31 women, that is, 29 per cent and 71 per cent respectively.

To the counselor is assigned the task of making out all pupil programs and schedules and of handling all difficult cases of educational adjustment.

The time schedule of classes is as follows:

Period I 8:00- 8:56  
 Period II 9:00- 9:56  
 Period III 10:00-10:56  
 Period IV 11:00-11:56

Period V 12:00-12:35  
 Period VI 12:45- 1:20  
 Period VII 1:24- 2:20  
 Period VIII 2:24- 3:20

There are six recitation periods of approximately one hour duration, half of each period to be devoted to conference and recitation, and half to supervised study. A signal is given at the end of each half-period. Lunch, home-section work, make-up classes, glee club work, and orchestra practice, occupy the fifth and sixth periods.

(e) *The Program of Studies.* Quotation is made in full from a bulletin issued by the Long Beach schools for all junior high schools:

**HOUSEHOLD ARTS.** This subject is open to all girls, and includes the study of foods—the preparation and serving, clothing with a short course in millinery, home keeping, etc.

**MANUAL OR MECHANICAL ART.** This course is equally attractive for boys, and includes woodshop, mechanical drawing, sheet metal, applied electricity, printing. Students in making application for these subjects should indicate preference or choice of the various types of work offered. If opportunity is not afforded for the selection of this work in the 8th grade, as much of the work should be elected in the 9th grade as possible. This applies to all students, and particularly to those who are not sure of completing the senior high school course.

**COMMERCIAL.** Work under this heading will include typing, business practice, elementary bookkeeping, commercial arithmetic and business English, including penmanship and spelling. These subjects are not offered as completion courses; but rather as try-out courses to determine the interests and the skill of the student. It is supposed that the work in one form or another will be continued in senior high school. While typing will be offered in the 7A grade, it is not intended that the pupil will continue with typing throughout his junior high school course. However, he may be permitted to continue until sufficient skill is acquired for practical purposes.

**SOCIAL SCIENCES.** This study includes the study of geography, history and civics or citizenship. The elective work of the ninth

grade will be largely a study of European history, the study of early and modern progress. The subject will be given a general treatment, and will meet the needs of those who may never have the opportunity to continue the work in senior high school history.

**GENERAL SCIENCE.** The work offered in the ninth grade will be a continuation of the work offered in the 7th and 8th grades. However, the work will become more technical, and will go more into detail concerning the functional value of the common forces of nature about us, including the study of plant and animal life.

**MATHEMATICS.** Two courses have been prepared for ninth grade, namely: General Mathematics and Algebra. It is suggested that the student who plans to go to college elect the course in algebra. Others who feel that they cannot continue further in high school with mathematics are advised to select the course in general mathematics. The practical applications of algebra and geometry will be included in this course. For those who plan to enter early into the business world a course in business arithmetic will be offered.

**MUSIC.** The elective music of the ninth grade will continue the class instruction in sight singing and music appreciation. In all elective music opportunity will be given to select work in orchestra, piano, chorus and glee club.

**FOREIGN LANGUAGES.** It is not intended that pupils in junior high school spend more than one and one-half years studying any one foreign language, which will give adequate preparation for the continuation of the work in the senior high school. Classes in beginning French will be organized when sufficient number of children desire it.

**AGRICULTURE.** This work will consist of home project work as well as some classroom instruction. The home projects will consist of gardens, both vegetable and flower, chickens, rabbits, and any other animal projects where sufficient interest can be aroused. To promote these projects clubs will be organized under competent leadership. These projects are especially advised for their home making value.

**SPECIAL ENGLISH.** Pupils who are having difficulty with their English will be advised to enter these special classes to bring up deficiencies. Classes in Oral English, including debating and dramatics, will be offered in 8th and 9th grades when sufficient numbers elect.



(f) *The Curriculum.* Under the 60- minute period plan, the Franklin Junior High School offers the following curriculum:

*Seventh grade*

*Eight B grade*

	PERIODS		PERIODS
Physical Education.....	3	Physical Education.....	3
English.....	5	Music.....	2
Mathematics.....	5	English.....	5
Social Science.....	5	Mathematics.....	5
Spelling & Penmanship.....	5	Social Science.....	5
Exploratory Cycle.....	5	General Science.....	5
Music.....	1	Exploratory Cycle.....	5
Art.....	1		—
	—	Total (required).....	30
Total (required).....	30		

*Eight A grade*

*Nine B grade*

	PERIODS		PERIODS
Physical Education.....	3	Physical Education.....	5
Music.....	1	English.....	5
Art.....	1	Electives.....	20
English.....	5	3 solids.....	
Mathematics.....	5	1 half-solid.....	
Social Science.....	5		—
General Science.....	5	Total.....	30
Electives:	5	The solids are Spanish, Latin,	
Typing, Business Practice		General Science, Mathematics,	
Spelling or Penmanship,		Manual Arts (2 periods per day)	
Music, Manual Arts,		Household Arts (2), Art (2).	
Household Arts, Art,		The half-solids are, Typing,	
Spanish, Latin.		Bus. Practice, Spelling or pen-	
	—	manship Agriculture, Special	
Total.....	30	English, Music, Manual Arts	
<i>Nine A grade</i>		(1), Household Arts (1), Art	
Same as Nine B.		(1).	

(g) *Social-civic Activities.* Social-civic activities appear in junior high school under one or several of the following captions:

1. Student-body organization and activities.
2. Student self-government organization and activities.
3. Intramural clubs.
4. Athletic games.
5. Socialized class-work and group-preparation.
6. Supervised home and other extra-mural social activities.

In the Franklin school there is a student-body organization which elects its own officers, holds assemblies, issues a monthly magazine and a weekly newspaper, controls and finances interschool athletic games, raised money to buy pictures and recently a moving-picture machine.

Student self-government does not formally exist: There is no policing of the halls, no detectives, no trials, no political machinery, such as was described in a previous chapter as being in evidence at the Holmes Junior High School of Philadelphia.

Intramural clubs have begun to appear. Athletic games and competitive sports are promoted and stimulated. Being carefully supervised by teachers of ability, true sportsmanship, habits of cooperation, loyalty, subordination of self, and leadership, are developed.

Socialized recitation was found going on in two or three classes. Group-preparation of lessons, group projects, and group responsibility were not conspicuously present except in debate and athletic games.

The home and other extra-mural social activities are not supervised by the school. No credit for home chores, church activities, or other outside work seems to be given. Parties are occasionally sponsored and supervised by the school.

Recognition and considerable encouragement is given by the school to such extra-mural social activities as the Boy Scouts, Y. M. C. A., and various church associations.

(h) *Physical Education.* The program of physical education in the Franklin school may be described under the head of athletics and play, health instruction, and health supervision.

The school has an athletic field of regulation size for football, baseball and speed ball. Provision is made for two indoor basketball courts, and six out of doors. There are no handball courts and only two tennis courts. There is an athletic field for girls, serving for girl's baseball, basketball, volleyball, and numerous other games. Boys and girls are required to take physical education three periods per week in seventh and eighth grades and five periods per week in ninth grade. Provision is made for corrective exercises for twelve boys each period of the day and for fifteen girls. At the time of the survey sixty pupils were enrolled in these corrective classes, but the teachers are present only in the afternoon. The teachers estimate that fully one hundred fifty pupils need the corrective work.

Health instruction is provided through classes in physical education, and to a limited extent in connection with general science, with visual education and with the work of the school counselor.

Health supervision is carried on by a nurse for half-time, but there is no medical or dental inspection on the school grounds. Occasionally the nurse sends pupils to the offices of physicians or dentists for examination and diagnosis.

(i) *Vocational Education and Exploration.* The vocational education available in junior high school is often of three kinds: Home-making for girls; commercial and industrial work of a simple nature, such as typing;

and Smith-Hughes project work. The girls in the Franklin school may elect home-making work throughout the 8A and ninth grades. Kitchens, sewing rooms, model apartment, and a cafeteria, afford ample opportunity for them to get good training in housekeeping. The commercial work is almost exclusively typing, and little attempt is made to give girls a culminal training that would prepare them to take a position as a typist. There is no other offering in this second class, although there are numerous openings in Long Beach for girls in small factories and stores in work that could be learned in junior high school. But there are very few foreign children in this school, and it is most frequently among foreign girls that one finds a demand for candy making, shirt sewing, etc. The third type—Smith-Hughes project vocational education—has not been offered in this junior high school.

Vocational exploratory courses have been introduced into the Franklin school, especially for boys. The cycle now includes ten weeks of each of the following: Sheet-metal work, woodwork, automobile repair, electricity, mechanical drawing, and printing. Boys find an interest in one or more of these occupations and later elect to take further work in their choice in junior high school and in senior high school. No follow-up has been provided as yet; but it is known that many boys have found a satisfying life career in one of the vocations which they have explored in junior high school.

The need of this school is to construct other exploratory cycles, especially in commercial, clerical, professional, women's industrial, and agricultural lines. The exploratry work should be definitely linked with the activities of the school counselor. The Long Beach "Choice of Occupation" Sheet, and the Exploratory Cycle Work Sheet, are printed here as typical of what the Franklin school is attempting.

CHOICE OF OCCUPATION

NAME.....GRADE.....SECTION.....

Put a figure 1 before the occupation you would LIKE BEST to follow if you could.

Put a figure 2 before your second choice of occupation.

Put a figure 3 before your third choice of occupation.

.... Section hand	.... Acrobat	.... Landscape artist
.... Street laborer	.... Boxer or wrestler	.... Architect
.... Bootblack	.... Auto racer	.... Sculptor
.... Logger	.... Baseball player	.... Library assistant
.... Hod carrier	.... Aviator	.... Librarian
.... Janitor	.... Electrician	.... Social worker
.... Teamster	.... Wireless operator	.... Teacher
.... Deliveryman	.... Draftsman	.... School principal
.... Truck driver	.... Mechanic or machinist	.... Reporter
.... Waiter or waitress	.... Photographer	.... Editor
.... Cook	.... Surveyor	.... Story writer
.... Cobbler	.... Clerk	.... Novelist
.... Barber	.... Mail carrier	.... Poet
.... Butcher	.... Ticket or express agt.	.... Play writer
.... Baker	.... Auto salesman	.... Historian
.... Grocer	.... Traveling salesman	.... Christian Science healer
.... Soldier or sailor	.... Stenographer or typist	.... Veterinary doctor
.... Conductor or motor-man	.... Linotypist	.... Dentist
.... Fireman or brakeman	.... Private secretary	.... Surgeon
.... Chauffeur	.... Bookkeeper or accountant.	.... Physician
.... Policeman	.... Nurse	.... Civil engineer
.... Detective	.... Merchant	.... Mining engineer
.... Plasterer	.... Advertiser	.... Mechanical engineer
.... Tailor	.... Building contractor	.... Electrical engineer
.... House painter	.... Factory or business manager	.... Chemical engineer
.... Plumber	.... Banker	.... Army or Navy officer
.... Carpenter	.... Music teacher	.... Politician
.... Stone or brick mason	.... Singer	.... Congressman
.... Joiner	.... Musician (player)	.... Mayor
.... Watch repairer	.... Musician (composer)	.... Lawyer or judge
.... Dressmaker	.... Orchestra conductor	.... Astronomer
.... Milliner	.... Dancer	.... Mathematician
.... Housewife	.... Actor or actress	.... Physicist
.... Chef	.... Stage manager	.... Chemist
.... Florist	.... Orator	.... Mineralogist
.... Fisherman	.... Lecturer	.... Botanist
.... Forest ranger	.... Decorator	.... Zoologist
.... Farmer or rancher	.... Cartoonist	.... Bacteriologist
.... Dairyman	.... Magazine illustrator	.... Psychologist
.... Stock breeder	.... Artist (painter of pictures)	.... College professor
		.... Explorer
		.... Priest
		.... Preacher
		.... Reformer
		.... Statesman

If the occupation you would like best is not given above, write it here.....  
 If you are a girl, do you prefer the duties of housewife to any other occupation?  
 .....



## EXPLORATORY CYCLE WORK SHEET

Characteristics	A 90-100	B 80-89	C 70-79	D 60-69	E Below 60
Interest in work.....	Enthusiastic	Quite inter- ested	Average	Lacks interest	Disinterested
Application.....	Very industri- ous	Good worker	Steady	Fair	Lazy
Ability to learn.....	Very quick to learn	Apt	Learns readily	Slow to learn	Dense
Self-reliance.....	Excellent	Self-reliant	Confident	Lacks confidence	Timid
Accuracy.....	Exceptionally accurate	Accurate	Average	Inaccurate	Careless
Speed.....	Very rapid	Rapid	Average	Fair	Slow
Reliability.....	Trustworthy	Reliable	Satisfactory	Irregular	Unreliable
Initiative.....	Excellent	Good	Fair	Lacks initiative	Poor
Judgment.....	Exceptionally good judg- ment	Good common sense	Ordinary	Lacks judgment	Rash
Conduct.....	Exceptional	Gentlemanly	Well-behaved	Troublesome Too talkative	Very poor or "fresh "

## EXPLORATORY CYCLE WORK SHEET

Date	Nature of work	Interest	Application	Ability to learn	Self-reliance	Accuracy	Speed	Reliability	Initiative	Judgment	Conduct	Grade of work

(j) *Culture.* The Franklin Junior High School curriculum does not provide an enrichment to the extent desirable. At least the titles of the courses are largely the same as for the seventh and eighth grades when conducted in elementary school. One notes in the schedule the appearance of Spelling, Penmanship, Arithmetic, Geography, Drawing, U. S. History, and English. However, a visit to a class conducted by the arithmetic teacher revealed that he had discarded the text and was teaching problems drawn from life situations. The drawing teacher also was working with rich materials of daily experience and emphasizing appreciation of art. The music class likewise was learning to appreciate great productions.

The ninth grade offers music, art, manual arts, household arts, Spanish, Latin, general science, algebra, and general mathematics. While the titles Spanish and Latin do not connote culture and the business of living, it is possible that courses going by these names might be rich in the social, historical, literary, and cultural heritage

of the peoples who have spoken those languages. Algebra may also be merely the title of a course through which the teacher may introduce his pupils to the racial cultures of many peoples. Music, art, manual and household arts, general science, and general mathematics, speak for themselves. One cannot imagine their being taught in a modern secondary school and by capable teachers without being made of great cultural value to the pupils.

The following illustrates the interest in music: Girls' Glee Club 39 members; Boys' Glee Club 40; Girls' chorus 60; appreciation class 20; orchestra 58, out of which are built a Baby Symphony Orchestra, a Boys' Band, and an Assembly Orchestra; piano class 10; and violin class 19.

*k. The School Counselor.* The counselor system is being introduced into the schools of Long Beach, and this year (1925-26) the Franklin Junior High School has for the first time a full-time counselor. Her work, as described by her, consists very largely in handling maladjusted cases. The difficulties of pupils arise from (1) not being able to get a course wanted, (2) not getting along with the teacher, (3) poor health, (4) entering school late after the beginning of the semester, (5) failure to pass in some course, (6) mental incapacity, (7) demerit trouble, (8) vocational and educational ignorance. Her duties are as follows:

Adjust programs of pupils who are in difficulty, on basis of investigation, tests, records and interviews with pupils, teachers, and parents.

Study scholarship records, and educational and mental test records.

Advise with lower schools in arranging programs of pupils to be received from them.

Co-operate with senior high school vocational adviser in making programs for 9A's going to high school.

Aid in administrative and instructional research by standard tests and investigations such as those of teachers' marks, costs, acceleration and retardation, and other studies as carried on from time to time by the department.\*

The following is a summary of her work for one month:

1. Conferences with students, 245; teachers 57; parents 22; principal 11; others 2.
2. Program changed 4; new 8.
3. Transcripts 2.
4. Transfers 13.
5. Tests, Terman group 69.
6. Nurse's work 15.

Below is a copy of the Research Information Card:

#### RESEARCH AND GUIDANCE RECORD FOR JUNIOR HIGH SCHOOL PUPILS

##### *Research information*

Last Name.....Grade 7B, 7A, 8B, 8A, 9B, 9A, H. S. Course.....  
 First Name.....Boy, Girl. Birth date.....Age.....Date.....  
 Address.....Phone.....  
 BIQ MA CA Date.....GIQ MA CA Date.....  
 Attendance: regular, irregular Reason: health, work, truancy, recreation.  
 Health: excellent, good, poor. Physical defects.....  
 Scholarship: Very superior, superior, average, inferior, very inferior.  
 Characteristics: noticeably strong or lacking.  
 Extra-curricular activities.....  
 Special accomplishments:.....  
 Vocational Preferences:      Grade 7                      Grade 8                      Grade 9  
    1.....1.....1.....  
    2.....2.....2.....  
    3.....3.....3.....  
 Transfer to.....School.....192...  
 Transfer to.....School.....192...  
 Transfer to.....School.....192...

\* From the letter of instruction sent to counselors by the Director of Research and Guidance, Long Beach City Schools.

[Reverse side of card]

Intellectual habits	Grades 7, 8, 9	Characteristics	Grades 7, 8, 9	Temperament	Grades 7, 8, 9
Studious.....	. . .	Responsive.....	. . .	Despondent.....	. . .
Irregular.....	. . .	Prompt.....	. . .	Non-communicative.....	. . .
Industrious....	. . .	Impulsive.....	. . .	Slow.....	. . .
Lazy.....	. . .	Careless.....	. . .	Reliable.....	. . .
Alert.....	. . .	Shiftless.....	. . .	Adaptable.....	. . .
Slow.....	. . .	Lazy.....	. . .	Interested.....	. . .
Adaptable.....	. . .	Active.....	. . .	Excitable.....	. . .
Non-adaptable..	. . .	Egotistical.....	. . .	Unstable.....	. . .
Original.....	. . .	Retiring.....	. . .	No humor.....	. . .
Accurate.....	. . .	Antagonistic.....	. . .	Alert.....	. . .
Unreliable.....	. . .	Irresponsible.....	. . .	Suggestible.....	. . .
Persevering....	. . .	Crushes.....	. . .		
<i>Attention</i>					
Flexible.....	. . .				
Wandering.....	. . .				
Persistent.....	. . .				
Behavior:					

**6. Conclusion: The Two Schools.** The following chart shows a few items of comparison of practices followed in the Kauffman Junior High School at two different periods of time, and in the Franklin Junior High School. It will serve to indicate the trends in the development of the junior high school as a functioning institution.



	Kauffman J. H. S. in 1919	Kauffman J. H. S. in 1926	Franklin J. H. S. in 1926
J. H. S. org.....	Yes	Yes	Yes
Includes 10th grade.....	Yes	No	No
Vocational and Educational counseling.....	Yes	No	Yes
Exploration.....	Yes	No	Yes
Supervised Study.....	Yes	Yes	Yes
Study-hall.....	No	Yes	No
Class-and-project Method in Social Education.....	No	No	No
Vocational Education.....	Yes	No	No
X Y Z classification.....	No	Yes (based on pupil's grades in Elem. Sch.)	Yes (based on tests and pu- pil's grades)
Opportunity Room.....	Yes	No	Yes
Smith-Hughes.....	Yes	No	No
Cafeteria.....	Yes	No	Yes
Library.....	Yes	Yes	Yes
Student Participation in gov- ernment.....		No	No
Enriched curriculum 7th and 8th grades.....	Yes	No	No
Fire-proof Building.....	No	No	Yes
Shops outside main building..	Yes	No	Yes
Adequate playground.....	No	No	Yes
Provision for permitting bright pupils to go faster than the average.....	Yes	No	Yes
Corrective physical educa- tion.....	No	No	Yes
Provision for admitting pupils of fourteen years of age irrespective of educational attainment.....	Yes	No	Yes



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